MYTHICAL AND PRACTICAL

IN

SZECHWAN.

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BY

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China Inland Mission.

WITH PHOTOGRAPHS BY THE AUTHOR
AND MAPS FROM CHINESE SOURCES.

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Annex

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MYTHICAL AND PRACTICAL IN SZECHWAN.

CHAPTER I.

Gleanings from Green City Hill.
青 城 歷 景

The city of Kwan Hsien (灌縣) is situated at the north-west corner of the Chengtu (成都) plain, just where the level country ends and the mountains begin; in fact the eastern half of the wall is on the plain, and the western half is on the first small hill, the beginning of the great border ranges. This city is about 120 li or 34 miles (according to cyclometer) distant from Chengtu, the capital of Szechwan, and is 2490 feet above sea-level and 800 feet higher than the capital. It is a busy trading mart for the Tibetan border, a strategic military position, which has for many generations been the barrier between Chengtu and the tribal country; in fact it is the key to the great west and north roads, besides which, it is an important pilgrim centre, and much religious and superstitious lore centres around it. It is also the source and head of the famous irrigation system, which is perhaps one of China's most useful public works; but as we shall deal with this work in a separate paper there is no need to do more than mention it here. The city is small and only has a population of about 7000 inhabitants, mostly Chinese, with a strong Tibetan strain in them; the exception being the small colony of Muhammadans, who have kept themselves quite distinct, through their long years of intercourse with the heathen. The city's ancient name in the Liang Han (兩漢) period was Mien-chi Hsien (綿虒縣). In the San Kueh Shi (三國時) ("Three Kingdom") period it was known as Tu-kiang Hsien (都江縣); in the T'ang (唐) period, Tao-kiang Hsien (導江縣); in the Yuan (元) period it was Kwan Cheo (灌州). The present name of Kwan Hsien only dates from the Ming (明朝) dynasty, and the reign of Hung Wu (洪武). At that time Kwan Hsien was governed from Sung-pan (松潘) by a military governor and probably formed part of a border military governorship. I have heard it said that the Province of

Szechwan was controlled astrologically, as to its intellectuals, by the demon and well stars. Whether this is true or not it is difficult to say, but I think that the people of the districts we now have under consideration may certainly be said to be so governed, because of the superstitions which haunt, and the rain which deluges, them. It is probable that the rainfall of the city and neighbourhood is 40 per cent. heavier than at P'i Hsien (郫縣) which is only 70 li away, and the reason would seem to be that the mist from the plain is driven westward till it strikes the cold air on the Min mountains to the west, and is then thrown down in torrents; this is confirmed by the proverb, *Ta ch'uh shan feng ts'ing, ta tsin shan feng ü* (打出山風晴 打進山風雨) *i.e.*, "A big 'out-mountain wind' is a sign of fine weather; a big 'in-mountain wind' is a sign of rain."

The proverb also runs "*Ts'ing feng ya ü Kwan puh ts'ing* (清風雅雨灌不晴) *i.e.*, "Tsing-k'i Hsien has wind, Ya Cheo has rain, but Kwan Hsien is never fine."

Another proverb has it, *Mao Cheo feng to, Kwan Hsien ü to*" (茂州風多灌縣雨多), *i.e.* "Mao Cheo is noted for its wind, but Kwan Hsien is noted for its rain."

There is a popular belief that the city is hollow underneath, and that the water from the pools fills this cavity and thus keeps the city afloat; it is also said that the main street of the city is in the shape of a dragon's head and a snake's tail, because of its being wide at the western and narrow at the eastern end. At Chuh Lin Si, Bamboo Grove Temple, (竹林寺) just outside the north gate, there is said to be a sound each night like the pattering of rain on the roof; this supernatural phenomenon or *King Chi* (景緻) is called the *Chuh Lin ie ü* (竹林夜雨) Bamboo Grove Evening Rain.

Not half a mile distant is another temple, at which there is said to be another phenomenon, like the beating of a bell early in the morning; this is called the *Sheng Tah shen chong* (聖塔晨鐘), *i.e.* Holy Pagoda Morning Bell.

At Ling Ngai Si (靈岩寺), *i.e.* Miraculous Cave Temple it is said that those at a distance can see people moving about with lights in the dead of night worshipping the old idols in the T'ieh-Fuh Si (鐵佛寺) or Iron Buddha temple. This is called (靈岩燈火) or Lamp-Light of Ling Ngai Si. This Ling Ngai Hill has of late years become more widely known, owing to its becoming one of the summer resorts for foreigners living in Chengtu, and also because of the stoppage of mining and the difficulty experienced by foreigners in buying land on that mountain, doubtless owing to the fact that the mountain is said to control the geomantic influence of a large tract of country, and even of the capital itself; this is spoken of as *Ling Ngai Long Meh* (靈

岩龍脈), or Pulse of the Dragon. Close to this temple is a famous cave called the Heh Feng T'ong (黑風洞), or Black Wind Cave, and it is said that a lad who was out gathering manure wandered into this cave, and was devoured by the huge snake which is popularly believed to dwell in its deep recesses, after which time the mouth of the cave was partly closed up to keep others from sharing the same fate. This cave is said to discharge black wind which does great havoc to the growing grain in the country round, and is spoken of as Tong K'eo Seng Feng (洞口生風), *i.e.*, Cave-mouth-begotten Wind. This interesting spot has been aptly described by some poetic genius as follows 巖壑得奇觀, 白鶴時來放洞口, 地天眞別有, 紅塵飛不到山頭.

"By cliff and vale, a marvellous view we find,
Where oft the crane its cave and nest doth find.
A place where heaven and earth their aspects change.
And cares of busy world are left behind."

At the Fuh-Long-Kwan (伏龍觀), or Crouching Dragon Temple, there is said to be a cold pool where the dragon has his nest; this is called Han Tan Fuh Long 寒潭伏龍, or Crouching Dragon Cold Pool, and close above it is the sacred and famous rock known as the Elephant's Trunk Rock, Li Tui Siang Pi (離堆象鼻); whilst just on the knoll above is the old Teo Tsi Tai (鬪鷄臺) or Cock-fighting Pit, which probably dates back to aboriginal times. The stage is constructed of heavy stone columns, which are braced together with stone slates; it is circular in shape and is about 15 ft. in diameter. The whole structure is dilapidated, but is an interesting relic and conspicuous land mark.

In the horse-shoe hollow below, where the Li Fan tribesmen encamp, there is what is known as the Feng Ts'i O (鳳棲窩), the Phoenix Bird's Nest, and it is interesting to note that the Long O (龍窩) or Dragon's Nest, is in the pool below. In this hollow facing the river is an ancient aboriginal grave. A little farther west, at the village of Peh Sha (白沙) or White Sand, there is said to be a white sand which sheds a light in the night, and also a ferry which transports spirit travellers across the river and is known as Peh Sha Van Tu (白沙晚渡), the White Sand Night Ferry.

At the Niang-tsi Ling (娘子嶺) Temple, lived the family of Yang Kuei-fei (楊貴妃), who became an empress during the T'ang (唐) dynasty with T'ang-ming-huang 唐明皇. The style Niang Tsi (娘子) was the name given by the people afterwards. The Lao Ren Tsuen (老人村) or Old Age Village is said to be near Shui Mo K'eo (水磨口). This living to very old age was attributed by the Chinese to the abundance of precious metal deposited in a well, whichmade all who resided at this village to live to be over a hundred

years of age, but unfortunately some base fellow stole the metal, and now nobody lives to that age.

The approach to Kwan Hsien is remarkable for a large ornamental arch like a city gateway, which is known as the Kwan Feng Leo (關風樓). This erection at the entrance to the T'ai Ping Kiai (太平街), or Great Peace Street, is of considerable age and is said to have been erected because the girls eligible for marriage seemed to leak out of the place, and hence there was always a great shortage of suitable girls. This archway was erected to rectify this evil, and since then affairs have been better, for now there is no lack of girls, and it is even said that Kwan Hsien is a good place in which to buy slave girls.

Inside the city near the north gate, and overlooking the temple to the God of Literature, there is a little red pagoda, which adds to the picturesqueness of the landscape, and is known as the Wen Feng Tah (文峯塔) or Literary Peak Pagoda. This neat little pagoda is in the shape of a Chinese pencil and has been erected to ensure literary success to the schools in the Examination Hall near by. In the wood adjoining this pagoda there is supposed to be a huge snake. One day a man walking in the wood stepped on what appeared to be a huge tree, felled and trimmed of its branches, and to his horror it began to move, and disappeared in the wood; and this was supposed to be none other than the fabulous snake. The Kwan Hsien large pagoda is situated to the south of the city, and to all appearance is leaning to one side, but according to popular opinion it is now erect, owing to a man having been found one morning with a crowbar and fulcrum, who on being asked where he was going he replied, "I am going to straighten up the Pagoda," and at night when he returned he said that he had done it; and the people believed it, though as a matter of fact it is still in the same condition.

To the south of the city about 45 li is a notable landmark known as the Wan Ren Fen (萬人墳) or Ten Thousand Person grave. This dates back to the latter days of the Ming (明) Dynasty, when Chang Hsien-chong (張獻忠) externimated the people of Szechwan. This Chang Hsien-chong was noted for his cruelty; even those he liked, he could see die without regret as is shown by the following incident. He built a pagoda of women's feet in Chengtu, but was sadly at a loss for a beautiful foot with which to top the pile. His favourite concubine volunteered her own, and he cut them off to make a top for this pagoda. This man Chang Hsien-chong was a Shensi muleteer and probably a semi-lunatic or at least a fanatic. He visited Szechwan with his mules, and thought the Szechwanese cruel, for when

one day he sat down behind a wall and his hand touched a patch of stinging nettles, which it is said he had not seen before, he was roused and said "The people of Szechwan are so wicked that even their grass stings. I will get even with them and kill them all for this wickedness."

When he visited the west of the river at this particular part the people were gathered together in the Kwan-te Miao (關帝廟) watching a theatrical performance. He suddenly appeared on the scene, and shutting the temple doors he exterminated the whole; and from that day to this, no theatricals have been held there, because if even it is attempted, there is the sound of demon voices and spirits weeping: *Kuei kuh shen hao* (鬼哭神嚎). The bodies of the dead were carried out and buried in one grave and a stone erected in their memory, which is now almost past reading, but the following is a copy of the inscription on the stone, now sadly defaced.

當年白骨聚成堆 歌舞場中遂砍頭
可嘆世人無遠識 只知快樂不知憂

Although piles of dry bones that fear made,
They once danced and sang till they lost their head.
Alas! most men don't think of to-morrow.
Thinking only of pleasure, regardless of sorrow.

Chao Kong Shan is a mountain directly facing the south gate of Kwan Hsien, and gets its name from a Taoist priest Chao-yuh (趙煜) who went to the top of this mountain and practised his magic art till perfected: the small temple on the mountain is still pointed out as the place he came to when his work was accomplished. Legend has it that there was once a temple on the top of this hill in which Chao Yuh lived, but this was destroyed by an earthquake, and the report is currently believed that the sound of beating of gongs can still be heard in the cavity beneath. Legend also has it that this Pan Long Shan (蟠龍山), or Top of Chao Kong Shan (趙公山), was taken to heaven and has become a celestial temple. At the foot of this mountain, between U Tang (玉堂) and Tai Ping (太平) markets there is a small mountain which is just as though it had been rent asunder by an earthquake, but it is popularly believed to have been cut asunder by the sword of Tu Fu-wei (杜伏威) whose headquarters were at Tsongking Cheo (崇慶州) old city, parts of whose walls are still visible. This man is also known as the Tien King Wang (天慶王). He lived before the time of the Three Kingdoms, and his grave is at Tsong Fuh Si (崇福寺) near Liao Kia Chang (廖家場).

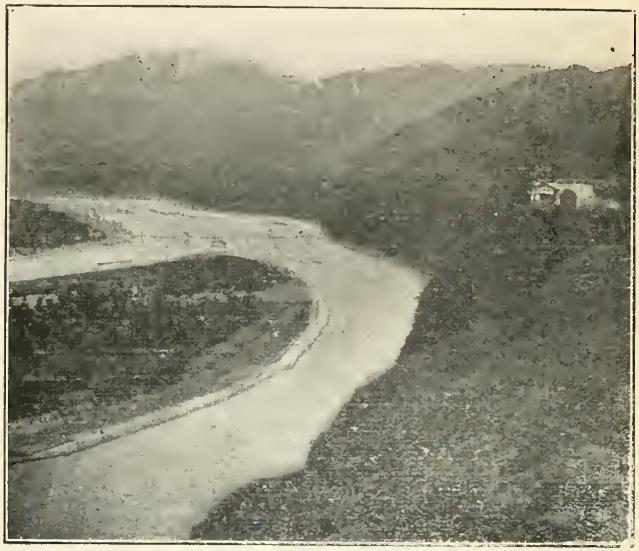
One of the most interesting places in the district is the mountain known as T'ien Si Tong (天師洞) also called Ts'ing Cheng Shan (青城山), at which place according to

the records is to be found a thousand year old tree, a *peh ko shu* (白果樹), dating from the Han Dynasty, and a palm tree with a double stem. The geomantic influences of this mountain are said to be very far reaching, for anything within 800 li is supposed to come under the influence of its eighteen *Yin* (陰, female) and eighteen *Yang* (陽, male) peaks. There are to be found the seventy-two caves in which are said to be engraven the names of the celestials. Also three frowning cliffs which resemble a lion's head, and the six phoenix cliffs which are hidden in the wood. During the T'ang (唐) Dynasty the Emperor visited the place and a tablet is erected to that effect. There is a hill on the left known as Ts'ing Long Kang (青龍崗), or Green Dragon Mound.

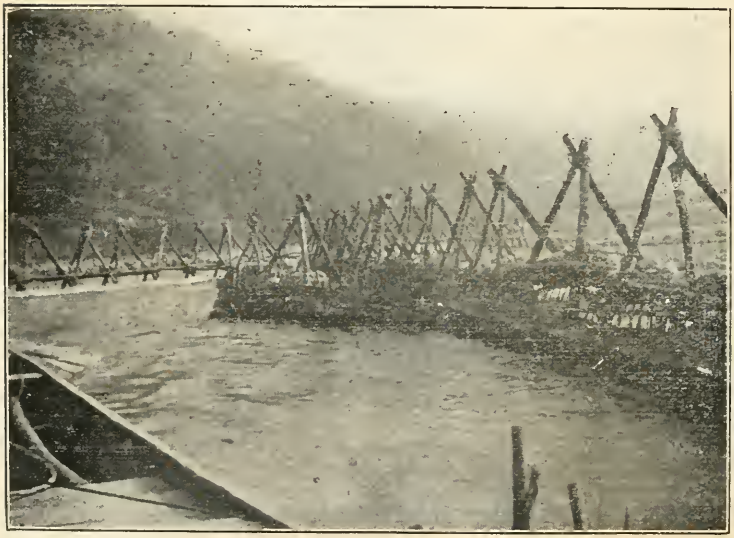
On the right there is a black tiger naturally formed in the rock. Within the supposed influence of this mountain, are mountains rising to the height of 3,600 feet. Below the principal temple, about three li distant, is a smaller one called the Fei Sien Kwan (飛仙觀) or Spirits' Monastery, the place where the celestials, after engraving their names in the cave, flew up to heaven. Above the main temple is a peak known as P'entsu Feng (彭祖峯) after a man named P'entzu who lived to be over a hundred years of age in the time of the Cheo Dynasty (周朝), before the time of Confucius. Near by is a place known as Wang P'o Keo (王婆溝) made famous by the report that here Ri Lang (二郎) or Ch'uan Chu (川主) caught the dragon, now supposed to be chained in the pool at the Fuh Long Kwan at Kwan Hsien, the chain of which is believed to be changed once a year. This Wang P'o (王婆) is said to be the mother of the dragon. She had a son who found a lucky place where each day a bundle of grass grew on the same spot owing to the presence of precious metal in the earth. This metal he brought home and put in the water butt and daily there was a supply of water; then his mother put it into the rice bin and daily there was rice to eat. One day, when his mother was out, he swallowed the precious metal, and became thirsty and drank the water-butt dry; still he was thirsty, so he fled to the river and jumped in and became the *nih long* (孽龍), or Guilty Dragon, having only one human foot left, when he was seized by Ri Lang. At the back of the mountain is a cliff known as the Kin Pien Iai (金鞭崖) or Golden Whip Cliff, which takes its name from Li-ts'ing Wong (李靖王) of the Luh Dynasty (六朝) who came to subjugate the aboriginal tribes, then in full possession of the country. After subjugating Cheng-tu (成都), Tsongk'ing Cheo (崇慶州) etc., his golden baton was thrown up here; hence the name Kin Pien Iai (金鞭崖). Close by the temple there is a well known as

Wei Cheo ̄ Looking South.

A Subdivision of the River within the Walls of Kwan Hsien.



View from Kwan Hsien.



Tripod Barriers.

the Wenyang Tsing (文陽井) into which if husband and wife mutually stare, their youth will be renewed; besides this well there is a well of perpetually flowing water and a bridge known as the San-tong K'iao (三洞橋) or Three-arched Bridge, which is situated in the middle of a cliff. In this vicinity there are also two temples, one called the Old Age Temple, Chang Ren Kwan (文人觀), so called because 'an old age star' shines on this spot; and the Shang-tsing Kong (上青宮). It was here that Li Lao-tsi (李老子), otherwise known as Li Ran (李聃) or Lao Küin (老居), who became a celestial, divided into three spirits, known as the Three Pure Ones: T'ai Ts'ing (太清) or Great Pure One; U Ts'ing, (玉清), the Pearly Pure; and Shang Ts'ing (上清), the Upper Pure One. Here is also to be found a pool called the Ma-ku Chü (麻姑池) where a girl named Ma (麻), after bathing therein became a celestial, so the pool was called after her. Here also is a Stone Bamboo Sprout Grove (石笋林); and close by there is the gully known as the Pehüin K'i where white clouds are always springing up. This gully is also known as the Shua-pih Ts'ao (刷筆槽) or Shake-pencil Gully. Legend has it that during the Han Dynasty (漢朝) the famous Chang Tao-lin (張道陵), when he had fought and overcome a wild beast, lifted the pencil with which he was writing his charm, and threw the ink thereon after the beast and it struck the hill, which split in two and the beast fled through the opening. Another version says that Chang Tao-lin cut this hill in two halves with his sword. On this mountain is also to be found the famous cave known as the Ts'ing Cheng Tong (青城洞) from which the hill takes its name, Ts'ing Ch'eng Shan (青城山). It is said that if you go far enough into this cave you come to another world of men and things quite different from this.

Close by is the Ch'ang Seng Kong (長生宮) or Long Life Temple, which has a reputation for giving long life to its devotees. There is also the Hsiang Tsih Si (香積寺), where are to be seen eight great marvels, spoken of as the Pah Ta King (八大景). These eight curiosities are difficult to find, but a few are given herewith. First the Leo-mi Shih (漏米石) or Leak-rice Stone. At the Hsiang Tsih Si there used to be lots of priests, and this rock used to drop enough rice daily for the use of all; if there were guests it dropped more, if none it dropped less; this continued till a greedy priest thought to make profit out of it by making the hole bigger, when the supply ceased altogether. Then there is the Ki-kuh Ch'i (雞骨池), Chicken-bone Tank. This tank used to produce a chicken, and if the priests took the chicken and killed it, and threw the bones back into the tank, the next day there was another chicken; till once the chicken

was sold, and the bones not thrown in and the supply ceased. Next comes the Peh Long Ch'i (白龍池) White Dragon Pool, a covered well which never goes dry. This white dragon is said to be the dog of Ri Lang, which on entering the well became a celestial, hence it is said that 白龍爲二郎嚎天狗, "The white dragon is the dog that called Heaven for the Ri Lang."

Then comes the Ku Hoh Ting, (孤鶴頂) or Orphan Crane Peak. This peak is said to be like a lonely crane bereft of its mate sitting alone on high. The above are four out of the eight marvels legend hands down to succeeding generations. Another peak called the Ts'ien-üen Shan (乾元山) has a famous cave known as the Kin-kuang Tong (金光洞). In this cave Kuang Ch'en-tsi (廣成子), chief disciple of Lao-Küin (老居), is buried, and the grave sealed up. On the hill known as the Su Chuang T'ai (梳粧台) an Empress of the T'ang Dynasty (唐朝) named Ch'en Niang-niang (陳娘娘) became a priestess. At the Shang Huang Kwan (上皇觀) there is a celestial cave. On the Chang Ren Feng (丈人峯) a celestial dissolved and vanished away. At the P'ai-fang Kang (牌坊崗) there is the famous Wang-sien P'o (望仙坡) the spot where pilgrims of old watched the celestials come into the temples. In the Hsiang-shui Tong (响水洞) or Rushing-water Cave, is believed to be the seat of the geomantic pulse of the whole district. On the Ta-mien Shan (大面山) tradition has it that Chao Kong-ming (趙公明) became both a celestial and one of the gods of wealth; he is also known as Chao Oh, (趙翼) or (趙煜) Chao Yuh. At this place a high official of the Sung Dynasty (宋朝) named Yao P'ing-chong (姚平仲) became a celestial; and during the Han Dynasty (漢朝) T'ien Si, (天師) or Chang Tao-lin (張道陵), whose ancestors Chang Koh (張角) and Chang Ni (張儀) trained up the Huang-kin Tseh (黃巾賊) or Yellow-turbaned Robbers, to make trouble, lived here. These two men are the originators of what is now known as the Hong Teng Kiao (紅燈教) Red Lantern Sect, or Boxers; they also started many of the Taoist delusions, hence the close connexion between Taoist priests and Boxers. This Chang Tao-lin (張道陵) is said to have opened the dragon's veins at the back of the temple, and by his sword hewn three huge stones, with which he shut the dragon down in a cave; and from that time the use of bricks to keep down demons began to be practised. It is said that there are five bricks of this sort not far from the south gate of Chengtu, and they are supposed to keep down demons.

There are evidences that these districts, specially those west of the Min River, were quite recently occupied by the aboriginal tribes, and the following from the Li-fan (理番)

history will do to introduce this very interesting study.

"During the Han Dynasty (漢朝) the districts of Sungpan (松潘) and Mao Cheo (茂州) were inhabited by a tribe known as the Ti Ch'iang (氐羌), but in the Ming Dynasty (明朝), in 1379, a certain official, called the Leveller, subdued them and garrisoned these cities, and settled two thousand Chinese settlers on the soil. About 1511, Captains were appointed to Shihts'uen (石泉) and Pati (八地) but a few years later these tribes rebelled. At the close of the Ming Dynasty (明朝), this rebellious spirit still existed, and during the commotions at the change of the Dynasty the Mao Cheo (茂州) military post was abolished and the tribes encroached, and even Weikiu (維州.) fell into disorder. Eventually the Long Meng Tao (龍茂道) was instituted to keep order in these districts. In 1662 this office was abolished, and the district put under the Ch'uansi Tao (川西道); in 1668 both offices were done away with, though re-established later. During these times Kwan Hsien was the barrier for Chengtu against these tribes; if this was lost the capital was endangered.

"Amongst this tribe, that is the Ti Ts'iang (氐羌), the women were had in honour and heredity was according to the female line of descent; their dead were cremated. They kept a hornless cattle called *t'ong-niu* (犝牛), one of which would weight about one thousand catties (= 1,333 lb.) One man of each family remained at home, and was called the blood man, all the rest becoming priests. At a wedding celebration all gathered together to drink wine and congratulate the young couple; the bride remained in her parental home till the first child was born, and afterwards she went to her husband's home, during which time the husband also stayed at the bride's home. In the time of the T'ang Dynasty (唐朝) the borders of these people were from Sungp'an (松潘.) and Uench'uan (汶川.) to Kwan Hsien (灌縣).

"The Wasi (瓦司), came from Wasi (瓦司) in Tibet, "Wa-si" meaning a tiled-roof temple. The Wasi were brought out by Imperial Decree to subjugate the Tiefan (吐番) on this border about 1442. Their chief Soh (索), was first named Sang (桑), *i.e.* Mulberry, but this name was changed by the Emperor Kien Lung (乾隆) because he saw a vision of a mulberry tree whose top reached to heaven, which the astrologers said probably signified that one named Sang (桑) would aspire to the throne; soon after this, Sang's embassy arrived to pay tribute, and his name Sang was immediately changed to Soh (索), a rope, (to hang himself with). Their original boundaries were from Kwan Hsien (灌縣) to T's'ongking Cheo (崇慶州) and Taigih Hsien (大邑縣); Muh-

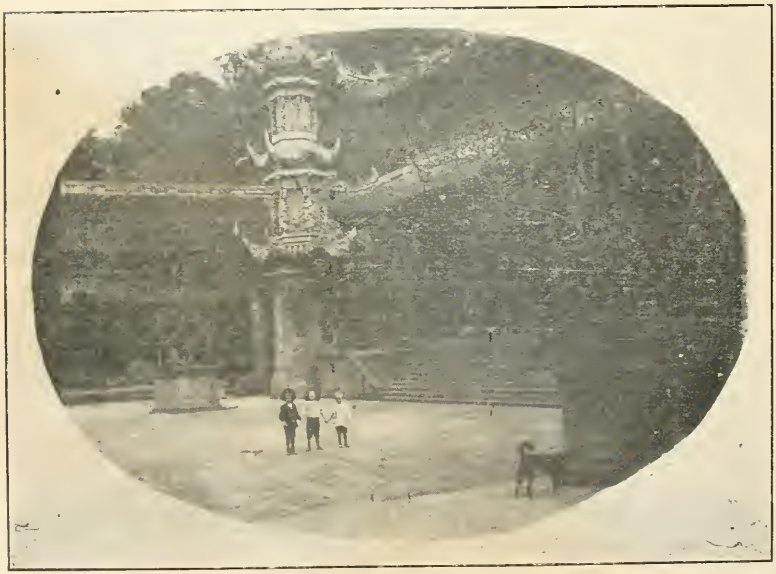
p'ing (木坪.) to Chohkok'i (卓谷谿), Tsakulao (雜谷腦), Weicheo (維州.) and Wench'uan (汶川), all on the west of the Min River. Of these Fan (番) tribesmen, which are Sohtusi (索土司) men, there are about 800 families who now pay tribute to Kwan Hsien 灌縣 and Wench'uan (汶倘), but they still keep up their connexion with Tibet, by the yearly visit of a Lama priest from the religious capital to say prayers, and they assemble on eighth of the first moon for their religious convocation."

With the foregoing quotation in mind we will now proceed to examine what evidences there are to be found at this present day of a former aborginal occupation. First let it be carefully noted that there are distinct differences in the districts east and west of the Min River. In the matter of the language, especially in colloquial phrases and names of common things, there are great differences and I am told these differences are of a distinctly Tibetan origin. Then in the character of the people a marked difference is observable, the Chinese generally being slow to wrath, and spending much time in wrangling over an affair in a tea-shop, whilst the residents of the above districts are much more fiery in temper, and knives take the place of words in quick succession. In the Tsongking Cheo district there are several families distinctly known to be of aboriginal stock, or *pen tsieh* (本籍). A Szechwan resident will rarely acknowledge that he belongs to the Province. A grave belonging to one of the Soh (索) princes is still pointed out near Fenchao (分州). Again, it is generally known that the eyes of the pure-blooded Chinese are very dark, but in the districts referred to a very different kind of eye is to be seen, an eye of yellowish colour, and it is a common saying that hair which has a tendency to be curly, or will not comb out straight, is a sign of a strain of Tibetan blood in the veins. In marriages it is still possible to find what is called a *Tao Chu Miao* (倒住苗) marriage, in which the bride-groom goes to the home of the bride, and this is said to be a remnant of the Tibetan style of marriage and of polyandry, and the female line of succession. The Tibetan art of sorcery is still practised in many places when people are sick. The land is not measured by the *mou* (畝) in places where corn is planted, but by the number of bushels of grain planted; this again seems to be a decidedly aboriginal custom. The art of building stone walls with round cobble stones and lime, and the dry stone dikes so common round the mountain side, is certainly an aboriginal art, only those Chinese who have learnt from the tribesmen being able to build these dikes, and to this day the digging of wells on the Chengtu plain is almost wholly in their hands, an art probably derived from the cave dwellers whose caves are still

Iron Bars.

Bamboo Baskets.

Breakwater above Overflow.



Ri Wang Miao.

to be seen along the banks of the Min River.

Even to the present time a great deal of the work on the irrigation canals is done by the tribesmen, especially the work of dry stone dike building ; and the longer I consider this great work of irrigation the more I am inclined to believe that aboriginal hands and brains are largely responsible for its imitation. In this connexion it should be remembered that to this day the Lifan tribesmen own the horse-shoe bend close to the irrigation work, now known as the Feng-ki O (鳳棲窩) or the Phoenix's Nest, at the bottom of which and just overlooking the river is a grave of some important aboriginal chief.

The ancient temple of Ling Ngai Si (靈岩寺) is probably an old lamasery. I have been told by an old scholar that the entrance to the temple used to be at the top of the first flight of steps, at the spot now known as the Stone Arch (石牌坊), and that from that point to the top of the hill temples were studded all over the hillside, which have now quite disappeared with the exception of a few deserted and dilapidated buildings, and some old iron idols which date from the Ming Dynasty or probably earlier. In a temple near Fencheo (汾州) named Ku Si (古寺), there is the image of a Tibetan woman, a Buddhist devotee, who died there in a sitting posture, and her body was embalmed and left in this position; many aboriginals go annually to worship this idol, the superstition being that as long as they keep up this worship there is a possibility of their again gaining possession of the country, and it is said that women weep before this shrine. But if the moral condition of these races does not improve I should think there is little chance of these hopes being realized.

In addition to the foregoing it might be mentioned that the yak (牦牛) come out each year and supply the Kwan Hsien market with beef. These animals rarely go as far as the capital, hence the saying *Mao puh ko Pi* (牦不過郫) the play being on the two characters *p'i* (郫) of Pi-hsien, and *p'i* (皮) of skin. The hair of the yak is still manufactured into cloth in Kwan Hsien and is called, *mao niu t'an tsi* (牦牛毯子), and the wool of the sheep is made into a coarse flannel called *muh tsi* (氈子). These two materials together form the staple cloth of the tribesmen.

The carrying coolies in Fencheo district wear a leather collar called *tan kien tsi* (擔肩子) to keep the carrying pole from hurting their shoulders, a custom quite alien to the Chinese. These collars are bought at a high price by owners of the salt wells for putting at the bottom of the brine tubs. It is said that owing to the perspiration and wear these collars are almost imperishable and men only part with them

for good prices. Besides all this there is a custom called *fen nien fan* (分年飯) which well informed people say had its origin in the tribes who inhabited the land before them. This custom consists, of taking at New Year time some salted meat chopped very fine and mixed with the rice, which is then carried to the orchard. An incision is made in the bark of the trees with a knife, and the rice and meat applied to the wound; then a piece of *hsi tsien* (喜錢), congratulatory money, is pasted to the tree close by the incision.

This custom of putting up *hsi tsien* (喜錢) extends very widely, and applies to dwelling houses, pig styes, stables, cow-sheds, beehives, dog kennels, and hen houses.

The time at which the greatest advance was made in the subjugating of these parts was most probably when Chang Hsien-chong (張獻忠) in 1660 very nearly decimated the inhabitants of Szechwan, and many of the remaining women were married either to soldiers or to settlers from other provinces. There are evidences also that the plain in some parts, at no very remote date, was forest, and infested by wild beasts. I know a house where there is a slab pointing to the place where a man was eaten by a tiger, only the foot being left behind to tell the tale. There are certain men whose identities are hidden deep in the legends of past years, and it is difficult to say whether they were Chinese or aboriginal. Amongst such are the famous three sworn brothers: Tu Fuh-uei (杜伏威) whose headquarters were at Tsongking Cheo in the city; Chang Shan-siang (張善相) whose Yamen is said to have been in the Fuh Long Kwan (伏龍觀) at Kwan Hsien; and Hsieh Kü (薛舉) whose headquarters were at Uenkiang. Then there is Hsia Yü Wang (夏禹王) of universal fame, whose name is repeatedly mentioned in the Records relating to the water system, to which former reference has been made. There is a tablet at Wench'uanHsien (汶川縣) to Hsia Yü. He was born at T'ushan (塗山) at a place called Fahüping (髮兒坪) now known as T'ongling Shan (銅陵山), the home and seat of the Soh (索) family, and on the rock close by is engraven *Hsia Ta Yu Ku-li* (夏大禹故里) *i.e.*, "Old Home of Hsia Ta Yü." The following translation taken from the Wenchuan records may be of interest.

"Records of the Stone Button Hill Holy Mother Temple

"About ten li distant from Wenchuan there is a hill known as (飛沙嶺) Fei Sha Ling also locally called Fengling (鳳嶺). This is the famous Stone Button Hill (石鈕山). On the top of this hill there is a small plateau known as Tahü P'ing where there used to be a temple

known as the Unveiling Virgin Temple (啓聖祠). Owing to the lapse of time it got sadly out of repair. At this point the hill is steep and dangerous to climb, the dust driving into one's face and making travelling difficult. In the 5th year of T'ong Chi (同治) a certain Meng K'i-ming (孟其敏) cut a road round the side of the cliff, instead of over the hill top, a work which took him three months. Whilst making this road, he also reconstructed in the middle of the cliff a temple to this Holy Virgin, because according to the records Hsia Ta-yü is a native of this place. His mother's name was Siu Ki, (修已) and legend says that a star fell into her womb and she conceived and brought forth this famous child at Stone Button Hill. Another legend says that whilst this woman was out wandering on the hill-side she picked up a pearl-barley-like jewel, and thus was the child conceived. Kao Ming (高密) says that this aboriginal maiden swallowed the ethereal essence of the moon and thus conceived and brought forth a son. The Lu Shi (路史) says that Siu Ki (修已), his mother, was 30 years of age and was still unmarried, being of a mind to serve the goddess of Stone Button Hill. Her time of pregnancy was fourteen months, and when she was delivered on the 6th of the 6th moon, behold the child was in the shape of a bat, but on the bat being cut open, it was a son and no other than Hsia Ta Yü. As to the truth of these statements it is difficult to say, but one thing is certain, that Hsia Ta Yü had a supernatural birth, and his mother was a holy virgin, no matter by what name you call her. And if we do not show forth her virtues to future generations, we are doing an injustice both to ourselves and to her; therefore the reconstruction of this Holy Mother temple (聖母祠), Sheng Nu Si, is the least we can do to show that we are in earnest about this matter."

CHAPTER II.

Irrigation Works on the Min River.

岷 山 導 江

The natural beauty of Kwan Hsien (灌縣) is greatly enhanced by its river system, and when it is taken into consideration that these rivers are almost wholly artificial, one is led to enquire into the origin of such greatly beneficial work. The waters of the Min River have their source in the Min Shan (岷山), and flow to Suen-k'eo (漩口) in two separate branches, but at the above place these converge into one and flow in a S. E. direction towards the irrigating works at Kwan Hsien, being joined on the way by two small streams, one called the Iu K'i Keo (尤谿溝), and the other the Peh Sha Ho (白沙河). The river thus augmented, especially during a summer flood, is a seething torrent, sometimes perfectly black with coal dust from the coal mines; at other times laden with uprooted trees, lumber from the timber yards, débris from fallen houses, and the carcases of drowned animals. A few years ago Dr. Hodgkin and Mr. Silcock, M.A., were much interested in a summer freshet, and made a rough calculation of the volume of water flowing past the south gate of Kwan Hsien, which is not quite half the water at such times. The river at this point is about 75 yards wide and the estimated volume of water about seven million cubic feet per minute, and even if this should be an over-estimate, half of the above volume of water being poured into the Chengtu plain by hardly one half of the river, it will give some idea of the difficulties to be faced in the management of such a river at the irrigation works; and it can easily be seen how the force of such a volume of water would very soon put any system out of repair. So we have records of repairs being carried out in the Yuan Dynasty (元朝) about A.D. 1300 by one named Kih Tang-piu (吉當普). He had iron tortoises made and placed at the bottom of the irrigation dams to make the foundations solid, and he also faced the banks with thick quarried stone and caulked the whole with lime mixed with *t'ong-iu* (桐油) oil.

Again, we find in the Ming Dynasty (明朝) records of repairs, especially in the reigns of Kia K'ing (嘉靖) and

Wan Luh (萬歷). During the former reign a certain Shi Ts'ien-hsiang (施千祥) and others made iron oxen and put them at the bottom of the dams for solidity, driving in cedar piles in front of them and building up the banks with huge blocks of hewn stone. To this man and period would seem to belong the first use of the bamboo basket so largely and effectively used at the present day. It is thus easy to see that the present state of the works has been a gradual evolution and possibly many ways and means have been tried, many heads and hands have united, and much treasure has been spent in order to bring the works to their present state of perfection. But there seems to be little doubt that the honour of originating these irrigation works belongs to a certain man named Li Ping (李冰) about the year 200 B.C.; and though he is called the T'ai Sheo (太守) of Kwan Hsien, a title indicating prince or prefect in the Han Dynasty, yet I am inclined to doubt whether he was a Chinese and think it more likely that he was the native chief who lived there at that time.

To understand the geographical position it should be carefully noted that the sharp ridge which stretches from Ling Ngai Si temple to Kwan Hsien city, when it reaches the point whereon the city wall is built, bifurcates into two smaller ridges; on the more easterly ridge the Kwan Hsien west gate and city wall are built; on the more westerly the outer barrier or second gate is built; and between these two points lies a horse-shoe shaped hollow known as the Feng K'i O. (鳳棲窩). This piece of land is still owned by the Li-fan Tu Si (理番土司), and here the tribesmen encamp and graze their horses whenever they come to Kwan Hsien for trading purposes. To attain his object Li Ping cut clean away the end of the more westerly of these ridges, leaving a sheer cliff at the point where the outer barrier of the city now stands; he then made a deep cutting through the easterly ridge, leaving a detached knoll known as the Li Tui (離堆) on which the Fuh Long Temple (伏龍觀), now stands, and he also made artificial channels for the water, past the south gate of the city, and away in an easterly and south-easterly direction. Farther west at a point almost opposite the Ri Wang Temple (二王廟) the first main division is made, by an artificial embankment being thrown up composed of cobble stones and gravel, faced now with bamboo baskets filled with stones, at which point the river is divided into two main streams, the one flowing through the gorge being both locally and officially known as the Inner River (內江), the other keeping to the old river bed and being known as the Outer River (外江). The Outer River, a little lower down, is named the Chen Lan Ho (正南河) or Main South

River, and still further down this Main South River subdivides into three streams, of which the first is known as the An Kiang (安江) or River of Peace. This river waters part of Kwan Hsien (灌縣), Shuang-liu (雙流), and Wen-kiang (溫江) districts, and passing by Hsin-king (新津) flows to Kiang-keo (江口). To this river we owe whatever boat communication we have with Kiang-keo (江口). The second branch is called the Heh Shih Ho (黑石河) or Black Stone River, and the third the Sha Ke'o Ho (沙溝河) or Sand Ditch River. These two branches irrigate Tsong-king Cheo (崇慶州) district in conjunction with four streams which have their source in the Chao Kong and Uen Hua mountains. The chief of these is the Si Ho (西河) or West River, which has its source in Siao Hai Tsi (小海子) and flows past Fen Cheo (分州) towards Uen-tong-chang (元通場), above which place it receives the waters of the Kin Ma Ho (金馬河) or Golden Horse River, and the Shih U Ho (石魚河) or Stone Fish River, which issue from the mountains at San Lang Chen (毛郎鎮)* and Kiai-tsi-ch'ang (街子場) respectively. A little way below Uentongch'ang, this West River receives part of the waters of the Sand Ditch River, and below Ts'ong-king Cheo (崇慶州) it receives the waters of the Black Stone River. Thus augmented, the West River flows to Hsin-king (新津) and Kiang-keo (江口) and joins the waters of the Fu Kiang (府江) or Capital River. The waters of the Inner River, after passing through the artificial gorge, and close by the south gate of Kwan Hsien city, are again divided into three main streams just by the east gate of that city. The first is called the Tseo Ma Ho (走馬河) or Walking Horse River. This branch waters part of Kwan Hsien (灌縣) P'i Hsien (郫縣), and Wen-kiang (溫江) districts; and passes Chengtu (成都) by the south gate of the city; part of its waters by a more circuitous route reaching the west side of the city and flowing through the city to the arsenal. The second branch is called the Peh T'iao Ho. (柏條河) or Cedar Wand River, this branch watering Tsing-lin (崇寧) and parts of the Hsinfan (新繁) and Sintu (新都) districts, and reaching the capital at the north gate, whence it then flows round to the east side of the city, and joins branch No. 1 or the Walking Horse River at the south-east corner of the city, then flowing south to Kiang-keo (江口) where it joins the Outer River, this part of the river from Ch'engtu to Kiang-keo being known as the Fu Ho (府河) or Prefectural River.

*"毛" San: this Character is peculiar to the particular place. Legend has it that the 毛郎 and the 二郎 were related to each other.

The third stream is called the P'u Yang Ho or Clear Calamus River, named either from the town of P'u-yang-ch'ang, or from the large number of river flags which grow on its banks. This branch on leaving Kwan Hsien flows first north and then east, and waters parts of the P'in Hsien (彭縣), Hsinfan (新繁), Sintu (新都), Han Cheo (漢州) and Kint'ang 金堂 districts; eventually passing through another gorge at the latter city, and joining the Chong Kiang (中江), which flows south *via* Kien Cheo (簡州), and Tsï Cheo 資州, and joins the Yangtze Kiang (楊子江) at Lü Cheo (瀘州), a distance of 300 miles or more from Kwan Hsien. All along the banks of these rivers are irrigating dams and weirs, leading the water off into smaller canals, for the cultivation of rice, and to supply water for scores of towns and hamlets on this vast and populous plain, and even beyond, thus transforming a formerly desolate region into a fruitful and well watered garden. During the months of April and May boat traffic is much obstructed by the dams and weirs put down by the farmers, in order to draw the water off into the fields for the planting of the rice crop. At such times the farmer is master of the river, and no one dares to meddle with his dams, or he might get into serious trouble.

The regulation of the water of the inner river is managed by the gorge and overflow; the overflow is situated near the gorge westward so that in summer, when high waters prevail, the surplus water which cannot get through the gorge is thrown back in a huge whirlpool and dashed over the Outer River, the gorge thus acting as a safety valve against flood for Kwan Hsien city and the capital. About the 1st December of each year the annual cleaning and repairing operations begin, by cutting off the water supply of the Outer River, thus turning all the water for the time being down the Inner River. This is done at that time of the year with little appreciable difference in the volume of water passing through the gorge, the summer rains having ceased, and frost having taken possession of the mountain ranges where the river has its rise. At this season the water is a beautiful dark blue, indicating its source in the icebound regions.

The cutting-off process is managed by means of rough timber tripods, put one by one into the river with bamboo baskets filled with cobble stones placed at the bottom, and across the tripods are cross-bars to keep the latter in position. A double layer of bamboo matting is then placed in front of the tripod, facing the flowing water, then clay or stiff earth is closely packed between the matting. After this is done the next tripod is put down, packed and ballasted in a similar way, a path of rough planks being laid for carrying the clay

through the centre of the tripods, and a boat and crew co-operating with the navvies for the transport of the tripod timbers. The bow of the boat is fastened well up on the opposite shore by a bamboo hawser, whilst the stern rests against the part of the barrier already in position. In this way the river is dried up, and when the barrier is completed there is only a very slight leakage, especially in the case of the Outer River. When the Outer River is thus dried off, the bed is cleaned out for about half a mile, and the banks made up with fresh bamboo baskets closely packed with cobble stones, and this work being completed, the waters of the river are allowed to return to their original channel, and then the Inner River is dried off in a similar way, the work of cutting off being begun in the shallow parts long before the cleaning of the other river bed is completed.

In the bed of the Inner River, just opposite the overflow, two large iron bars are placed. These bars are said to have been formerly placed higher up in the river bed, but were carried down and deposited in their present position by the flood tide. At this point the waters of the river strike heavily against the artificial banks of the overflow, and much silt is thrown back and deposited in mid-stream, covering the iron bars to the depth of six or eight feet. When the contractors clear out this part of the river bed it is necessary for them to lay bare these bars or the officials will not pass the work. One of these bars dates from the Ming Dynasty (明 朝) and the fourth year of Emperor Wan Lih (萬 歷), A.D. 1576. The other dates from the third year of the Emperor T'ong Chi (同 治) A.D. 1865. It is said that these bars were originally of the same date, but one was carried away and lost, possibly it lies at the bottom of the whirlpool at the gorge, and the bar bearing the later date was put there to replace the old one. These bars are about ten feet long and estimated to weigh about 3,000 catties each. (catty = 1⅓ lb.) The banks of the overflow are made up of bamboo baskets packed with cobble stones; in places where break-waters and moles are necessary, these baskets are piled carefully one on the top of the other; in other places they are laid side by side like a mighty army in array. The baskets are changed once each year, and are about 30 feet long and two feet in diameter, the apertures through which the stones are put being about six inches, when not twisted or stretched. Each basket now costs about 18 tael cents, and several thousand are used yearly. The sum of 80 cash is paid for packing one basket with stones. The bamboos for making these baskets come down from the mountain districts and are grown, felled, and floated down to the irrigation works by agents of the Government, and a

strict watch is kept to see that they are not stolen; any one caught stealing them is liable to be severely bambooed by the water official. The shape of the banks of the overflow is like that of a new moon. When looked at from the West gate of Kwan Hsien, and from the foot of the above hill, where the iron bars are placed, the river bed has a slight rise till it reaches the point where the artificial banks are erected; this slanting or ascending bed, in conjunction with the crescent-shaped banks, leads the water round with a sweep, throwing it with great force into the mouth of the gorge, and whatever water the gorge cannot pass is thrown back in a huge whirlpool, and over the overflow, which is almost level with the danger mark on the water measure in the gorge. This measure is cut in the solid rock, the measure commencing at water level of the pool when the river is dry, and giving measurements of 14 or 15 feet. In times of unusually high water this measure is anxiously watched by officials and people alike, as whenever that measure is covered much damage will be done to the lands lying on the river banks on the plain.

The writer conducted the late Lieut. Watts Jones over the irrigation works, and he said "The Chinese have unconsciously accomplished a great engineering feat much along the same lines as the British Government is attempting in India to deal with such rivers as the Godaveri."

The rule laid down by Li Ping for the management of the works is both a wise and safe one, and is doubtless the secret of its success, *viz.* "Dig the channels deep and keep the banks low" (深淘灘低作堰). This is just the exact opposite of what has been done with the Yellow River, where, instead of cleaning out the beds, they have gone on raising the banks, till it has come to be rightfully known as "China's Sorrow."

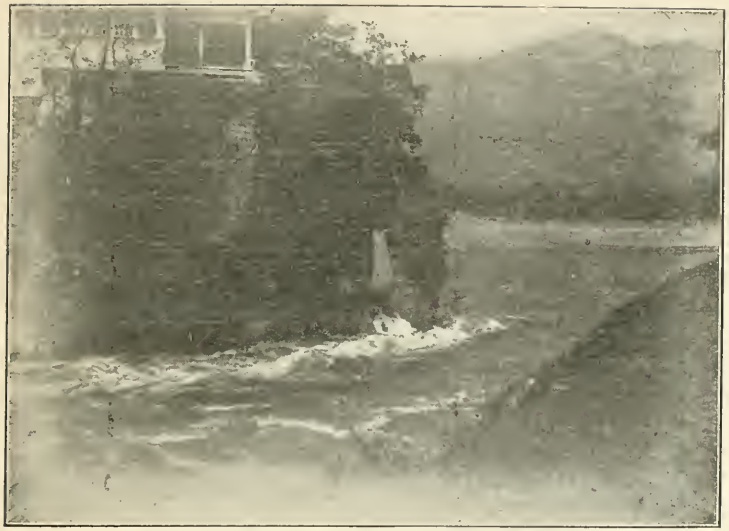
The digging of the river bed is contracted out at the rate of 12 tael cents per square of 10 feet, one foot deep, at which rate a labourer can earn about 60 cash per day besides his food. It is said that the work of digging out the river beds used to be done on the levy system, each district getting the benefit of the water having to find money and men to do the work in yearly rotation; later on this was changed, and instead of each county supplying so many men, a yearly tax was imposed of one tael for each man formerly levied to do the work. Still later on this was again changed, and the tax was varied according to the acreage, and graded according to whether the county received a full or partial supply of water; for example, Kwan Hsien, (灌縣) P'i Hsien (郫縣) and Tsonglin Hsien (崇寧縣) get full advantage of the water; therefore they are assessed at the rate of 15 tael cents per

arable *mou*. Other districts which only get a partial supply of water are assessed at the rate of 10 tael cents per *mou*. The total number of districts getting full or partial benefit of the water is about 10 counties with a probable acreage of 25,000 *mou*, but the present total income for the use of the water is only a little over 1,000 taels, or only about one-eighth of the yearly expenditure, the remainder being paid out of the Land Tax and obtained by the Shui Li Fu (水利府) or Water Inspector, from the provincial treasury through the Intendant of Circuit, Long Mang Tao (龍茂道), now the K'uen Nieh Tao (勘業道). It is estimated that Tls. 1,500 are spent on rice, Tls. 1,800 on bamboo, Tls. 3,500 on labour, thus making Tls. 6,800; but almost every year there are extras, which very often bring the cost of repairs to about Tls. 8,000.

Of this amount the district magistrate administers about Tls. 1,000 for cleaning out the river bed which skirts the south wall of the city, this practice being doubtless maintained in order that the magistrate may protect the walls of his own city.

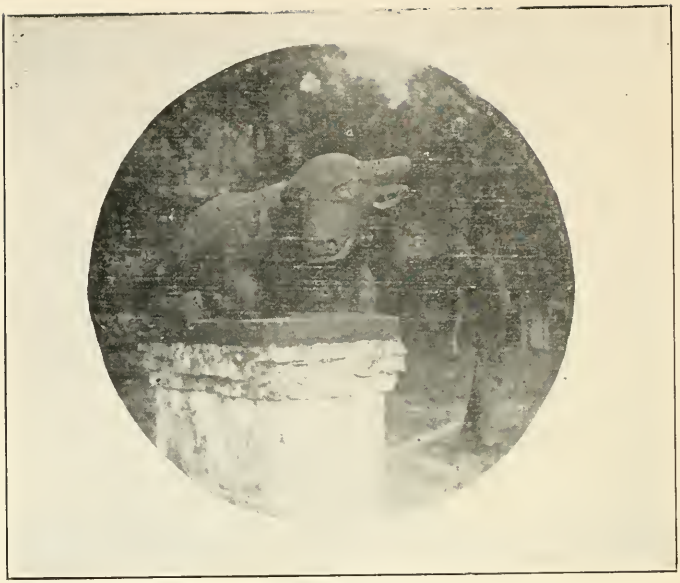
The position of Water Inspector is more honorary than lucrative and consequently the holders of the office are glad when they are transferred to another post. The rank of the Water Inspector is that of second class prefect (二府), and sometimes he gets a Cheo (州) position on leaving Kwan Hsien. Some of these officials make a "squeeze" out of the contractors who do the work, and in some cases I have known the contractor never to have been fully paid, so that the contractors in turn "squeeze" the labourers and put in slip-shod work to make up for their losses. The residents know at once if a water inspector is doing his work conscientiously by the appearance of the river beds and dikes. Generally about the 1st April, or a little earlier, when the repairs are nearing completion, the Water Inspector selects a lucky day and invites the Intendant of Circuit to come and open the river. If the latter reckons the day chosen by the Water Inspector to be unlucky, he chooses a more auspicious one, and the Water Inspector then notifies the people by proclamation as to the day and hour at which the ceremony will take place.

The Intendant of Circuit on the day of his arrival is met by all the city officials, who conduct him over the works, which he inspects and officially passes; he is then conducted to the official residence, where he stays during the night. Whilst there he often receives complaints from the people regarding the insufficiency of the water supply for their fields, or the encroachment of the river upon the arable land. The Water Inspector offers a present of a feast ready prepared,



ELEPHANT'S TRUNK.

IRRIGATION CANAL.



Stone Ox.

Entrance to Fuh Lung Miao.

which is generally refused, the refusal being sent back with the usual formalities; when the District Magistrate offers an invitation to a feast, which is accepted. All the expenses of receiving, entertaining and escorting, which amount to about Tls. 600, are borne by the District Magistrate, the Water Inspector only giving a few presents which cost about Tls. 100. No doubt the reason for the bulk of the expenses falling to the Magistrate is that he is in a position to get money out of the people, whereas the Water Inspector can only make a small "squeeze" on the river digging funds.

The morning after his arrival, His Excellency the Intendant of Circuit, rises early and proceeds to the temple erected for the worship, and to the memory, of Li Ri Lang. (李二郎) This temple is called the Ri Wang Miao (二王廟), and here an elaborate ceremonial is performed in front of the shrine of Li Ping (李冰) and Ri Lang (二郎). The Intendant of Circuit kneels and worships, a reader calls out the virtues of these ancient worthies, and another voice from behind the idol acknowledges the receipt of the worship and adulation. The officials then proceed to the river side, where everything has been prepared for the opening ceremony; long bamboo tracking ropes have been attached to a few of the tripods; a band of strong coolies stands ready at the end of the ropes; an altar has been erected where candles and incense are burning; a sacrificial pig lies ready slain on the altar; and just as the sun begins to show its golden tints over the horizon the Intendant of Circuit kneels down and worships the God of the River. At this juncture the coolies give one long strong pull and a great shout, and down falls some of the barrier, and the waters of the Min River rush into the newly cleaned artificial course with such force that sometimes some of the coolies are drowned. This happened in 1911 and is reckoned a very unlucky thing. The Intendant of Circuit gives a reward of 50,000 cash to be divided amongst the coolies and workmen, though the District Magistrate has to pay this amount out of the local treasury. It has been stated that the Yamen runners whip the waters with whips to hasten them on their fertilizing work, but I have been unable to find out whether such is really done. I think this custom is now obselete, but large numbers of people gather on the banks of the river to watch the inrush of the waters, and much importance is laid upon the force of the waters which flow in during the first few hours, which is taken as an indication whether the water supply of the year will be good or bad. Children build castles of cobble stones in the river bed to be thrown down by the waters; young and old, male and female almost invariably throw stones at the water, no doubt partly owing to superstition, as it is said,

Ta shiu u ping (打水無病) that is, "Those who throw a stone at the river (on the opening day) will be free from disease (for that year)." As soon as the Intendant of Circuit sees the barrier opened he gets into his chair and makes for Ch'engtu as fast as men can carry him: he tries to race the water, as it is reckoned very unlucky for him should the water reach the provincial capital before he does.

If the water supply should be poor in the spring time and insufficient for the farmers to sow their rice they band themselves together and march to Kwan Hsien with mattocks and hoes over their shoulders, where amid the clanging of gongs they smash the inner doors of the Water Inspector's Yamen, and demand water for their fields; the Inspector appeases the people with whatever good words and promises he can muster for the occasion, and forthwith proceeds to the Long O (龍渦) or Dragon's Nest, at the gorge, where he burns incense and candles, taking a pot of water from the pool home to his Yamen, where it is kept in reverential custody till the dragon is good enough to give a rise of water, when the official takes this water back and, repeating his former ceremony and giving thanks, returns the water to the dragon in the pool. If the rise of water should be delayed, the Inspector proceeds to the Long Chi (龍池) or Dragon Pool, which is about 100 li from Kwan Hsien, and prays for rain. In dry years the Viceroy himself sends a deputy to beseech for rain; if rain should be long delayed the Yamen of the Intendant of Circuit is liable to be besieged by an angry host of rustics clamouring for water for their fields.

During the fifth year of the reign of the Emperor T'ong Chi (同治) a great flood broke through the bank on the south side of the gorge, when it is said some fabulous fishes were washed ashore from the pool by the gorge, which is said by the way to be without a bottom. The flood damaged a large tract of country. After a time the bank was securely built and a large stone ox erected on the spot to ward off similar dangers, and close by was also erected a high stone column with a calf on top, called the Hwei-Lang-Chu (洄瀾柱), or Turn-Wave-Pillar.

The Outer River is navigable for small craft all the year round, excepting for about 40 days, when the river bed is dried out for cleaning purposes, but owing to the numerous rapids very little passenger traffic is done, and boats chartered to carry goods are also very expensive. Of late years boats have commenced plying on the Inner River, whilst the Outer River is dry, and it is said that some of these boats go to Lu Cheo by Kintang Hsien (金堂縣) and others to Chengtu. (成都).

About the first of May the Inner River is officially opened for raft traffic by the ceremony of sacrificing to the God of the River; the river thus opened remains so till it is closed for cleaning in January. The rafts which pass through the the gorge mostly proceed to Chengtu, but a few go to Tsong-lin Hsien and other places. These rafts are taxed 1,000 cash towards the incidental repairs of the river. It is said that about 2,000 pass through the gorge each year. The rafts are made up of logs of all shapes, lengths, and thicknesses, and the timber of one raft is worth from 200 to 300 taels, besides which there is a general cargo of coke, charcoal and millstones weighing from three to five thousand catties. The timber is floated down in small quantities to Peh Sha, (白沙), about five miles above Kwan Hsien, where it is stacked and then built into rafts for transport down the river. When a raft starts from Peh Sha it carries from three to ten extra men to help to pilot it through the gorge and under the bridges at Kwan Hsien; when the last bridge is safely passed, they leap ashore without the raft's stopping, and for this half-hour's work each man gets 150 cash; the pilot of the raft gets 1,500 cash for the trip to Chengtu whilst the assistants each get 1,200 cash. This is considered high pay, but it is recognized that it is earned at the risk of life, as there is considerable danger in navigating the gorge. At this point the raft is sometimes overturned, and men and baskets of coke are thrown into the whirlpool, and the raft, left to itself, is either thrown round and round in the whirlpool or drifts helplessly down and may be thrown on the piles of the South Bridge or drift down the wrong channel and be thrown violently on to the timber-catching piles (柴圈). In the case of a wreck, if a man is unable to swim it is almost certain death, and even if he can swim there is considerable danger of being crushed or entangled in the raft; every year the river claims a good number of victims from amongst the raftsmen. When a man is drowned, the timber merchant in whose employ he lost his life pays the sum of Tls. 30 to his relatives. After an accident the river is closed for three full days as the river is reckoned unlucky for that period. The place at which the rafts are wrecked is in the gorge, on the rock known as the Elephant's Trunk, which is really the sharp corner of the rock of the Li Tui (離堆) or Detached Knoll on which the Fuh Long Kwan (temple) stands. If when taking the gorge the head of the raft gets past this rock, then all will probably go well; if the head of the raft gets behind this rock it will most likely be upset or driven round the whirlpool, and dashed upon some rock, or go broadside into the gorge and be broken up. During the busy season large numbers of

people stand on the shore and excitedly watch the passing of the rafts, giving words of approval or disapproval as the raftsmen strain every nerve to get the raft safely through. A few years ago the Water Inspector stationed a life boat at the lower end of the gorge to try and save the lives of wrecked raftsmen. The boat was worked by having a thick bamboo tracking rope stretched across the river and fastened to a tree on the banks. Then another rope was fastened from the boat to a sliding cylinder slipped round the rope stretched across the river, thus enabling the boat to put out into midstream without danger of being taken down by the current; but the boat met with an accident and one of the crew was drowned, so at present the life boat has lapsed into disuse.

As this Elephant's Trunk Rock is the cause of all the damage to navigation, I have sometimes suggested to the Chinese that it might well be removed, but they have all remonstrated with me, saying that this sacred rock must not be removed, and the following story is given as the reason.

Formerly a certain Provincial Judge with sacrilegious hands began to remove this obstruction in order to help the navigation of the gorge, but no sooner had he begun than certain high officials died and the work had to be stopped. It is said that Viceroy Ting Kong Pao (丁宮保), when he made the "big dig" (大淘) of the river beds about 1876, entertained the idea of pumping dry the pool at the Elephant's Trunk and had over 100 pumps put into the pool and personally watched them a whole day; by evening they had lessened the water two feet, but by morning the water had again risen to its normal level, so this project was abandoned.

It is commonly reported amongst the people that a certain district magistrate named Luh Pao-teh (陸保德) dared to touch this sacred rock, and as a consequence the heavens dropped black rain, and the dragon roared fiercely in his den beneath; later he sent a diver down into the pool, who is said to have stayed there three days and three nights. This diver reported that he found a fine pavilion inhabited by a beautiful lady, with bracelets of precious stones on her wrists, and as she was fast asleep the diver drew near and slipped the bracelets from her hands and brought them up to see the light of day. Luh Pao-teh said to the diver, "You have no doubt hit upon the Goddess of the River, but make haste and return these bracelets or we are all dead men." The diver returned immediately and put the bracelets back on to her hands, and just as he had finished she awoke. The diver in haste quitted the pavilion and returned to the

surface safe and sound. The popular idea is that if these bracelets had not been returned before the Goddess awoke, she would in anger have flooded the country-side.

The people of Peh Sha (白沙) village, where the rafts make their start, have the custom of bringing their dragon lantern to Kwan Hsien during the first fifteen days of the Chinese New Year and parading it through the streets. This dragon lantern is called the Lao Long (老龍) or Old Dragon, and superstitious opinion holds strongly that if this lantern does not go its accustomed round many raftsmen's lives will be sacrificed in the river, and so strong is public opinion on this question that even the district magistrate cannot stop this procession, though he may stop others. It is said that each year an extra length is added to this dragon.

The shrine of Li Ri Lang at the Ri Wang Miao (temple) is visited by multitudes of pilgrims from every city on the plain during the Vth and VIth moons but the chief festival is the 18th of the VIth Moon. This object of worship appeals to the rationalistic ideas of the Chinese; it satisfies their desire to worship something; but they also hope that by doing so they will have enough water for their fields during the following year. At this season the priests make 'a good thing' out of the deluded people, by taking the things offered by one person back to the dealer in idolatrous wares at the temple gate, to be re-sold to the next batch of pilgrims. The temple itself is one of the finest in China, both for situation and architecture; some fine Chinese carving and ancient writing and lacquer work can be seen there. Its grounds are extensive and beautiful; there is one fine tree which takes two men's arms to span, and dates from the time of the Ming Dynasty; and there are some finely trained trees in the courtyard; whilst in the main court an iron dog is placed on which people who are sick rub themselves. Here may also be seen an iron dragon discharging water from his mouth, a turtle pond and a rockery. In the main building the chief objects of worship are Li Ping and his son Ri Lang, and on the top terrace of the building an image is set up to Lao Küen (老君) the founder of the Taoist Sect. Formerly there was a Niang Niang Tien (娘娘殿) and a Song Tsi Kwan In (送子觀音), or Goddess of Mercy, at which numbers of women went to worship. Not long ago Cheo Taotai, when at Kwan Hsien opening the waters, objected to this adjunct to the temple of Li Ping and ordered that these female images be removed. The priests, kneeling down, said the Goddess would be greatly displeased and might send calamity. Cheo replied that if the Goddess were displeased, she would not blame the priests. "Let her come

to me!" he said. * The portable images were removed to a small temple on the street below, and the remainder buried with great reverence in the wood behind the temples. Several fires occurred in the city and suburbs shortly afterwards which were all put down to the account of Cheo Taotai. The temple is well endowed with lands, and though its priests are many they are well fed and clothed, the Abbot being quite a *grand seigneur*; but they greatly fear the Government policy of confiscating temple lands and have suffered considerably.

Doubtless this irrigation system is one of China's greatest public works, and much more beneficial to her people than some others which are more widely known, and, moreover, it is one of the few that have been kept in fairly good repair. It is a great blessing to the Chengtu plain, for it practically ensures the country against drought, even in the driest year, and is largely responsible for the teeming millions who find a livelihood on its soil. The waters of the different branches of the rivers are the best and cheapest method of transport, and, therefore, a great commercial blessing to the people; but there never was a blessing that was not abused, and the supply of water for the fields is a continual source of litigation, and no quarrel is so bitter and no lawsuit so intricate as that which has any connexion with the water supply. The Kwan Hsien river, owing to its swift current, is a very convenient place for people who want to commit suicide; women dress themselves in their best clothes and shoes and jump in; men in the height of passion seize their adversaries and jump into the waters together to end their strife; and it is most difficult to effect a rescue, or for themselves to get out even if they repent of their rash act. Rescued persons almost invariably make a second attempt and succeed.

The Fuh Long Kwan (temple) has been confiscated by the Government, and its lands are now used as a Government Mulberry school; whilst the temple buildings are used as a reception hall for high officials, and as a first class hotel for passing foreigners. Along the river bank a bund of great beauty could be made, and close by the water the air is cool, even on the hottest day. Its current is as swift as any rapid in the Yangtze gorges, and in flood is fearful to look upon; at such times the water gauge in the gorge is submerged, and water flows over the embankment where the stone ox is placed; such floods carry destruction in their course, and the timber yards at Peh Sha sometimes lose twenty thousand taels' worth of lumber in a night.

* Within six months he was out of office and in less than nine a refugee from the wrath of the populace.

The possibilities of using this power for the driving of electric railways or factories remain to be developed, but in order to have a permanent supply of water such will need to be above the first main division of the river, five li above the west gate of the city. The longer I view this work the more I admire it, and would like to know more of the man in whose brain it originated.

As there has been considerable misunderstanding amongst the Chinese regarding Li Ping (李冰) and Li Ri Lang (李二郎), the son of Li Ping, and consequently much confusion amongst foreigners, I give in the following chapter translations of a few stone tablets of various dates which will help to give some light on this question. Li Ping is now assigned to the place of honour in the temple near the gorge, formerly called the Lao Wang Miao (老王廟), now known as the Fuh Long Kwan (伏龍觀), or Crouching Dragon Temple, whilst Li Ri Lang, the son, is assigned the back court of the temple; but at the Ri Wang Miao (temple) Li Ri Lang sits in the main court whilst the father takes the back place. Li Ri Lang has now been exalted to the position of Lord of the Rivers, with temples in various places known as Ch'uan Chu Miao (川主廟).

CHAPTER III.

West Szechwan's Most Remarkable Work.

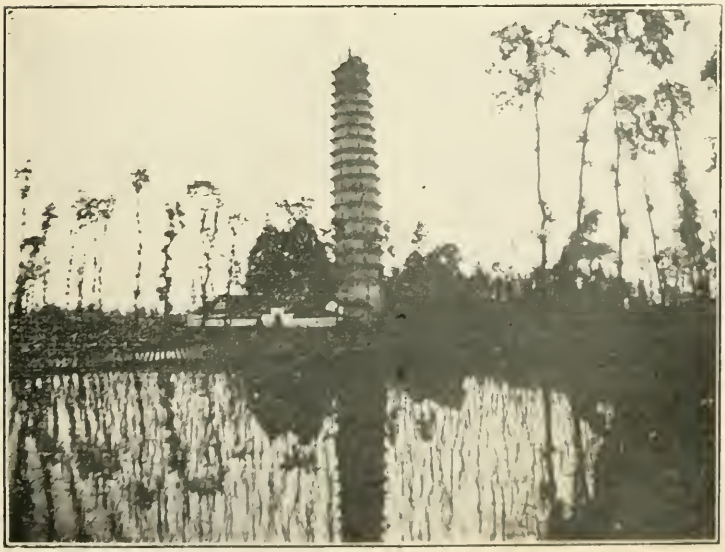
川 西 第 一 奇 功

Record by Huang Uin Koh (黃雲鵠).

In the tenth year of the Emperor T'ong Chi (同治) and in the IVth moon, there was a prolonged drought in these parts, and although petitions had been made for rain they were of no effect. On hearing people say that at Kwan Hsien at the place known as the Li Tui (離堆) or Detached Knoll, there was a crouching dragon, and that if sacrifice were offered to this dragon rain was sure to come, I rode quickly to this spot to pray for rain, and on arriving I lodged and fasted in the adjacent temple. One day when wandering around the hillside watching for signs of rain, I also viewed the Inner and Outer Rivers, with all their beauty, together with the Elephant's Trunk, Fish's Jaws, (魚嘴) Overflow (泮水), and the banks shaped like the character *ren* 人. Then I began to understand the great method used in the management of this river. I noted how the water rushes, then suddenly stops and becomes still, then turns back in a mighty whirlpool, and then turns again and rushes outward. As I watched I was filled with amazement at the work, and said, "The venerable Li Ping certainly had supernatural power, and was worthy to receive sacrifices for endless time, because of his supernatural insight; what his ability has accomplished can clearly be seen after a thousand years have passed away; if we, his successors, follow his methods we shall never go wrong." The shore opposite the Detached Knoll is named the Tiger Head Cliff 虎頭崖. In ancient times there was a rock set up in the river at this point.* About the beginning of the reign of the Emperor T'ong Chi a certain provincial judge made up his mind to remove this obstacle because it impeded the raft navigation. If this Elephant's Trunk were removed the dangers and difficulties would be increased, because this rock at present slightly stops the rush of the water, giving the raftsmen time to steer the raft round the corner and through the gorge. Our venerable ancestor's motto for the management of the

*Probably the Elephant's Trunk.

Irrigation Wheels.



Newly-planted Rice, Kwan Hsien Pagoda.

PLANTING RICE.

A FOOTBRIDGE OVER A MOUNTAIN STREAM.

rivers, is still the governing principle and still the subject of admiration, and all lies in the six characters 深淘灘低作堰 *(Shen t'ao t'an ti tsoh ien)* which means "Keep the banks low, and dig the beds deep." If the obstruction in the gorge could have been dispensed with, our venerable Li Ping would have spared neither trouble nor work. If ever it should be removed, from that day the people will meet with retribution. I hope that no attempt will be made to verify my words, for such an attempt would end in disaster; but if the rock is allowed to remain it will be to the happinesss of this whole prefecture.

I therefore select another motto of six characters, and engrave them on the wall, (川西第一奇功). *Ch'uan si te-ih k'i k'ong, i.e.* "West Szechwan's most Remarkable and Meritorious Work," as an example to others; and moreover record my hatred of the man who shall dare to touch the rock, and I also utter a warning to the self-confident and self-conceited lest they should dare to spoil the work of the ancients, and thereby injure the people.

Lao Wang Miao Record.

By Tsong Shih (崇實), Viceroy of Szechwan.

At the time of the Ts'in Dynasty (秦朝) the Kwan Cheo prefect Li Ping, and his son called the Ri Lang, cut through the hill, leaving a Detached Knoll, thereby warding off the dangers of unchecked waters. He likewise opened the Outer and Inner rivers, and dug out canals to irrigate the fields, making the land fertile and good. After his death the people sacrificed to him as a god; and down to the present time, they dig the channels, and build up the banks, according to his precepts; thus through all the preceding dynasties the people have reaped great benefit; but owing to the lapse of time and the corrupt practices of the people, much of the truth has been lost, and now sacrifice is only made to the Li Ri Lang at the Tu Kiang Ts'i, Ri Wang Miao (二王廟), only giving the venerable Li Ping a place in a back court of the temple.

In the reign of the Emperor Yong Cheng (雍正) the Viceroy of Szechwan, Si Lu-t'eh (西魯特) named Sien Teh (憲德) memorialized the Throne, beseeching that Li Ri Lang be raised to a higher position amongst the national gods. The Throne replied that Li Ri Lang had only the virtue of assisting his father in the completion of the work and that his father was really the originator of the work, thus to elevate Li Ri Lang and forget Li Ping was not according to right and reason. We therefore decree that Li Ri Lang be created "The Prince Assistant of his father's merit, a hero of great grace," whilst Li Ping be created "The Prince Initiator and Protector-General of the River." Although the Government had now given Li Ping his rightful place of

honour, the half-yearly sacrifice was still offered to Li Ri Lang, and the people talked such lots of idle talk, that even Li Ri Lang's authentic history was almost obliterated. But in the reign of the Emperor Han Feng (咸豐) the Provincial Examiner Ho Shao-ki (何紹基) memorialized the Throne as to the impropriety of this state of affairs, but still the practice went on. Why should a son, though he has attained the position of a sage, eat food whilst his father starves, or even eat his food whilst his father waits? Moreover, Li-Ping had great personal virtues, and has bestowed vast benefits on the people of Szechwan by his ability and activity, and it is quite easy to see that he could have finished the work, without the help of his son; but now the son receives the sacrificial offering whilst the father is forgotten, the son thus hiding his father's virtues. This is a grave disorder. The common people, who have not investigated this question, may be excused on the ground of ignorance, but this cannot be said of the scholars and officials, who knew of this evil, and made no effort to have it rectified, and we must certainly condemn them. They were afraid of the expense it would incur and the trouble it would take, but truly it was unbecoming on their part to allow this beneficent spirit to lose his rightful place, and to fail to appease him with rites becoming his position. Under such conditions how can we protect the country or enjoy happiness therein?

In my opinion the decree of Yong Cheng (雍正) made this matter perfectly clear, and there was no further need to memorialize on the subject.

Thus in the fourth year of the reign of the Emperor T'ong Chi (同治) the Intendant of Circuit, the Long Mang Tao (龍茂道), named Chong Kuin (鍾崚) came to Kwan Hsien, to inspect the work of the repairs of the river, and inspect the Detached Knoll or Li Tui (離堆), now known as the Fuh Long Kwan (伏龍觀), to see whether the site would be suitable for the erection of a Lao Wang Chuan Ts'i (老王專祠) for the worship of Li Ping (李冰). Chong Kuin accordingly examined the Fuh Long Kwan and found its prospect pleasing, its site suitable, and its entrance imposing and extensive, all uniting in making an admirable spot for the erection of a temple to Li Ping, giving him the seat of honour, whilst his son Ri Lang would occupy the court at the back, the former idols being kept in the back courts of the temple. Urgent orders were then issued to the Kwan Hsien Magistrate and his successors as well as to the Water Inspectors, and the local gentry, to see to the building of the temple. They drew plans, and drew up estimates for the building, which cost 10,000 taels, the districts getting benefit from the irrigation system being asked

to contribute to the cost according to the fixed rate of taxation for the water. The work of building was commenced, in the second moon of the fifth year of the Emperor T'ong Chi (同治) and was completed in the third moon of the following year. A lucky day was then selected and the spirit of the Prince Initiator and Protector General of the River System was brought from the Ri Wang Miao, the great idol being built where it now stands, and settled in the chief seat in the Lao Wang Miao (老王廟), thus giving a formerly neglected god his rightful place and worship.

When Chong Kuin had finished this work he invited me, Tsong Shih (崇實), to make this record. I remember that "The Book of Changes" says that "When a man is living he is visible, but when the spirit departs he is not changed; such is what we know of the desires and likeness of the gods." Spirits are invisible to men, but a man's spirit will be like unto himself, and after careful thought I have decided that what will comfort the heart of a living man, will also comfort his spirit. Thus, according to the Five Relationships, this spirit which has been neglected for so long has now been restored to his rightful place, and his worship secured; this is in accord with right in both visible and invisible worlds; this was brought about by the effort of Chang Kuin (鍾峻), and I, Tsong Shih (崇實) hereby make a record of it for the information of future generations.

The Thousand Gold Dike Record (千金堤記),

Record by P'en Hsuin (彭洵).

The work of opening rivers was begun in the Hsia Dynasty (夏朝) by Yu Wang (禹王) but he did not make the irrigation dams. In the time of the Ts'in Dynasty Li Ping tunnelled the hill and irrigated the country for a thousand li, leaving six characters as a motto to rule the work; and the whole of Szechwan's irrigation works had their origin here. Through the times of the Han (漢) and T'ang (唐) Dynasties, the people followed the rule laid down by Li Ping. (李冰) During the time of the Song (宋朝) Dynasty the works were allowed to go slightly out of repair, so that in the Yuan Dynasty iron tortoises and stone sluices were introduced. In the Ming (明朝) Dynasty iron cows and iron oxen were put in, but they still followed the rule laid down by Li Ping; during the Ts'ing Dynasty (清朝) the river beds were yearly attended to, and the banks repaired. These dams are now called the Fu-Kiang Ien (都江堰) or Capital-River Dams, and are famous all over the province.

This irrigation system is of great importance. On the east side of this Ts'ien Kin Ti (千金堤), or Thousand Gold

Dike, is a high hill. On the west is a bank of sand, and between these two points the river bed does not exceed a hundred paces; at this point the river flows down with a gentle curve, with three turns sharp to the east and west, with a sound like the rolling of thunder, and in its waters the mountain peaks are clearly reflected. On one side of the gorge the cliff is called the Fu T'eo Ngai (虎頭崖) or Tiger's Head Cliff; on the other side it is called the Siang Pih (象鼻) or Elephant's Trunk. At this point there were formerly three sluices to regulate the water, but these were utterly unable to withstand the force hurled against them and fell out of repair. During the summer of the fifth year of the Emperor T'ong Chi there was a great flood, which burst open the banks to the west of the Li Tui, inundating the country for several miles before returning to its usual course, after destroying the crops, houses, and graves, and producing great devastation. The local magistrate reported the matter to his superiors in Chengtu (成都). The Provincial Judge of that time, named Chong Chong-shan (鍾中山), deputed Tsen In-kwang (曾寅光) to be Inspector of Water Works, and gave particular commands regarding the broken dike. On his arrival he carefully and diligently examined this spot, and sighed deeply, saying, "This calamity will be hard to avert." Nevertheless he personally superintended the laying of the foundation of the new dike to stop up the breach and dam back the waters. This dike, which is of considerable size, begins at the Detached Knoll and juts westward, causing the waters of the Overflow to flow in that direction. On the top of this dike he erected a pavilion where officials could watch the rise and fall of the floods, and this he named the Wait-water Pavilion (Wang-ts'ih Ting, 望澤亭). He also had two stone water-oxen carved and erected, one on the right and the other on the left of the pavilion. The one erected on the high pillar he named the "Turn-Wave Pillar (洄瀾柱, Huei-Lang Chu). The dike itself he named the Thousand Gold Dike (千金堤, Ts'ien Kin Ti), because of the expense involved in building it; but the whole work was modelled after the pattern left us by our venerable Li Ping (李冰). When the work was finished he invited the writer (彭洵, Pen Hsuin) to make a record of the matter, and having done so, he said: "My task is finished, but I desire that men who attain an official position, and especially those who become Inspector of Water-works, should be diligent, and look well to the good of the people and let their continual thought be to ward off the disaster of flood. Do not forget, that you are receiving official emoluments, nor forget the great disaster the wild waves create in their onward flow."

The venerable Ts'en by his example ought to make the people of this place continually think of his work of fighting the waters through all generations, thus leaving to his successors in office a wortly example to be followed.

Why should a record be made thereof?

CHAPTER IV.

Irrigation Records and Investigations.

Li Kong, Father and Son.

李公父子治水記略

"Tao" (道) is the heavenly principle or "Li" (理). This "Li" is perfected in man. The man who has "tao" (道), is in intercourse with Heaven; but none, even though he be a celestial, can ever reach this high standard of communion except by supernatural gifts. If scholars then do not know how this communion can be established how can they possibly know how the gods became gods? Before Hsia Yü Wang (夏禹王) regulated the waters by opening the Wu Shan (巫山峽) and Kwei Fu (夔府) gorges, the waters, owing to obstruction, flowed everywhere; but after the obstruction was removed, and the water monsters were subdued, the waters flowed freely, and there is no proof of the saying that it was after this was done that these water monsters came out and injured the people. There is plenty of written evidence about the opening of the Wu Shan gorges (巫山峽) but the Shu King (書經) alone mentions the opening up of the Min Shan (岷山) in the following two or three sentences: 岷山導江, and also 岷嶓既藝沱潛既導, the idea being that the Min hills had already been opened, that the river led through them, and the Min (岷) and the Po (嶓) mountains had already been cultivated; the Tsoh (沱) and the Tsien (潛) rivers had also been regulated, the taxes adjusted and the tribute paid to Liang Cheo (梁州) thus avoiding the calamities of drought and flood, but there were places where it was not so; for in the time of the Cheo (周) Dynasty the regions of Rong and Shuh (戎 and 蜀), were still inhabited by aboriginals, whilst the Chiang (羌) and M'ao (氂) divided the country between them. How then could any work be accomplished? Thus the rivers and country got gradually out of hand! The annals of Hua Yang say that after the opening of the Mei (沫) waters, the floods continually harmed the people. These waters issue from the mountains which formerly kept them in check, but before the mountain was tunnelled, and the Detached Knoll made, this Detached Knoll was part of the mountain range, the waters flowing

past its east side and careering wildly away, making the whole country of Shuh the dwelling-place of fishes and turtles, (or its inhabitants like fish and turtles). But for the advent of Li Ping upon the scene it would have been impossible for the people in these districts to do farming. This was indeed a great calamity which needed a great man to put right. But Heaven loved its people and gave Li Kong, father and son, for this great work of opening the two rivers, by beheading the dragon, and the water monsters; and by burying in the river a stone rhinoceros. By these two things, killing the visible monsters of the deep and burying the monsters of the earth, Heaven united the visible and the invisible, thus showing forth his power. These two men, if they had not got "tao" (道) or "doctrine" in their being, how could they have accomplished these great works? But Li Kong's (李公) work was not confined to Kwan Hsien, though his helpers were but few, and extended to such places as Lan Ngan (南安), and Uin King (綵金), and now it is falsely reported that there is more than one Li Tui (離堆) or Detached Knoll. If Choh San Lang's (竹圭郎) merits are outstanding Li Ri Lang's (李二郎) are much more so, for Choh San Lang was only one of Li's assistants; besides, Li Ri Lang had not only special endowments (*tao*, 道) for this work but he had the advantage of his father's training and experience. Moreover, he was young and strong and fond of hunting, and therefore was sent by his father to behead the dragon, which he did with the help of his seven friends, hence the legend that there are in the Mei Shan (梅山) seven celestials who bestow benefits upon the people. But people have only preserved the legend, and forgotten the real work, much to the chagrin of those who are in search of the antiquated. Li Kong (李公) was the ancestor of the Li (李) family whose old family name was Yui Tong (猶龍族). Li Kong hid himself in the mountains of Min and Ngo (岷峨) where he became friendly with Kwei Koh-tsi (鬼谷子) and when Chang Ni (張儀) failed to build the city of Chengtu (成都) owing to the floods, Kwei Koh-tsi (鬼谷子) recommended and forced him to be prefect of Shuh (蜀) under Ts'en Shih Hwang (秦始皇). He built the city and regulated the waters, driving out the tortoise and terrapin, erecting the Star Bridge to control the geomantic influences. His duties were very many, for he governed the country as well as managed the waters, so that from this time Ih Cheo (益州) or Chengtu, began to be called T'ien-fu (天府), and hereafter the people of Shuh (蜀) called him the Lord of the Rivers (川主). Unfortunately people do not properly investigate the matter, and only extol Li Ri Lang, and forget the merits of Li Ping

himself, forgetting that any glory a son may have belongs to the parents; and forgetting that the son was sent by the father to do the work; this is clearly stated in the annals. Why then has it come about that Li Ri Lang has a special temple for himself? Moreover the Shi-Shui-Pei (誓水碑) or Forbid-Water-Slab is at Pen Hsien (彭縣), and the Behead-Dragon-Slab is at Kwan Keo (灌口); stone oxen and stone rhinoceroses are not few in number; from Kwan Hsien to Chengtu, all the way along, they may be found, but the reason for these it is difficult to state. And now, having carefully investigated the matter and set down the facts in writing, I have asked my pupil Wang Hwei-uin (王惠榮) to put the same into the Kiang Tu Kiao (江都考) in the Ri Wang Miao (二王廟) in order that these matters may be carefully recorded; and that good and great men may follow my example and investigate ancient lore.

Written by Liu Yuen (劉沅) at 80 years of age.

Investigations of the Inner and Outer Rivers.

內江外江考

During the Kin Dynasty (晉朝) there was a man named Tso Si (左思), who wrote a treatise on the Shuh country which says that there were two rivers running in the same direction—Ri Kiang Shuang Liu (二江雙流); and the people of after years accepted this saying. There are some who, not having visited the district in person, but having carefully investigated the writings of Yang Hsiong (楊雄) and what the Yü Kong (禹貢) records regarding the Kiang (江) and the So (沱), as two divisions of the same river which later were spoken of as the Inner and Outer Rivers, would make these two rivers to mean those which flow on either side of Chengtu; but this is not so, for the Hua Yang Chronicles (夏禹王) say that after Hsia Yü Wang had opened the rivers, probably near Wen Chuan (汶川), the waters of the river continually harmed the people till Li Ping (李氷) opened the gorge and made thereby two rivers. He also dug the P'i Kiang (碑江), leading the waters to irrigate the fields of the people, thus making Shuh (蜀) into what was afterwards called the "Heavenly Prefecture". The Mei River (沫水) is just the Tsao (皂), or Heh Shui (黑水) and is quite distinct from the Mei River of Lan-an (南安) and Kia Cheo (嘉州). This river comes out of the Min mountains, and though its sources are many, when it reaches Kwan Hsien by the Shui Si Kuan (水西關) and the Peh Sha Ho it is one. Before the gorge was opened these waters flowed round the outer edge of the hill; and, having no barrier to hold them in check, caused floods which were a

continual terror to the people. This scourge of the country was divided by Li Ping into two streams; the one that circles the mountains is called the Inner River (內江), the one that flows further away is called the Outer River (外江). The character *Li* (離), means *to detach*, the character *tui* (堆) means *a knoll*. The hill-foot threw out a spur, which must once have been part of the hill; or why is it now called a "Detached Knoll?" Li Ping (李冰) opened a channel through this hill and allowed the waters to pass through, killing the hidden water dragon, thus causing the waters to flow smoothly. This part of the river as it flows past the south and east gates of Kwan Hsien is called the Liu Kiang (內江). Again from the S. E. corner of the city he opened two more rivers, the one on the right flowing to the south gate of Chengtu, called the Fu Kiang (府江); the other flowing to the north gate of Chengtu, and being called the P'i Kiang (陴江). Near the bifurcation of these rivers and spanning the Fu Kiang is the Soh Long Ch'iao (鎖龍橋), and on the P'i Kiang (陴江) is the Tai Ping Ch'iao (大平橋). The river which flows to the north is called the San Peh Tong (三百洞) and also the Kien Kiang (檢江). The character *Kien* (檢) means *to make*; and indicates that the river is an artificial one made by Li Ping. What might be called the main stem of this river flows past P'i Hsien watering innumerable fields, and thus the riches of this region have their origin in Li Ping's work.

The Outer River has also brought great good to the people; from the time that Hsia Yu Wang (夏禹王) opened the rivers, the people have derived from it great advantage, but nothing to be compared with the advantage that Li Ping brought by opening the gorge and Inner River of Kwan Hsien. The original name of Kwan Hsien was Tao Kiang Hsien (導江縣), but from the time that Li Ping (李冰) opened the river it had been called Kwan K'eo (灌口), until some time later when it was called Kwan Hsien 灌縣. The Outer River also bore the name of Kin Ma Ho (金馬河) and is the original stream of the Min River (岷江). Its old name is Tsao Kiang (皂江). This river flows direct to the S.-E.; not only do the waters of Shuh run into this river, but even those of the Kin Sha Kiang (金沙江) join it at Sui Fu (敘府). Chinese river management dates from the period of Hsia Yu Wang (夏禹王). This, according to the Yu Kong (禹貢), is the real beginning, but this book makes no mention of the Kin Sha (金沙江) or the P'e Kiang (陴江) or the Ts'ien Kiang (湔江). These rivers, below Kwan K'eo (灌口), are called the P'e Kiang (陴江) where they pass P'e Hsien; where they pass Wen Kiang (溫江) they are called Ts'ien Kiang (湔江). This is the ancient name of Wen Kiang. These are the really vital points in the river

management, but as the system became more intricate and the irrigating dams more numerous, their names were taken from the places where they were constructed. Those people who merely see and hear, but do not investigate, how can they know the real truth about these things? Formerly the Liu Kiang (內江) was also called Tsoh (沱) because people did not know that when Hsia Yu Wang (夏禹王) worked at the rivers there was no such river; and they also said that T'ien P'en (天彭) was Hwang Hsin Kwan (黃涔關). From the time of opening of the gorge, that dam has been called the Tu Kiang Ien (江都堰); but there have been additions, and changes such as the placing of five stone rhinoceroses on the banks of the Inner River, at P'e, P'en, Shuang and Wen Kiang Hsiens; In the capital, in the Tartar-General's Yamen, there is a stone rhinoceros which some say is the original one, but that is not so for the original stone or door is at Shih Si (石犀). Again, as to the names of the Inner and Outer Rivers, the whole point is one of distance from or nearness to Kwan Hsien city, but this has often been forgotten. It has been held that the river that went inside of Chengtu was the Inner River, and the one that bore away from Chengtu was the Outer; and again, that the waters from T'ien P'en (天彭) the Ts'ien (潛), and Loh (雒), joined together, were called the Inner River, and hence the name Liu Kiang Hsien (內江縣). What is the use of a name when it is wrongly used? Hence the importance of making this name clear.

Li Ping's merit is difficult to show forth, and what scholars have written has not been done carelessly. From the beginning it has been important to remember the virtues of the ancients, recording their merits for the benefit of after generations.

The River and the Detached Knoll.

江 沱 離 堆 考

The wonders produced by hills and rivers can only be realized by visiting them; even a sage, unless he visits the spot, can never fully understand them. To study books and not to examine visible things, or simply to look at outward appearances and to take no notice of earlier hints on the subject is sure to produce a false impression. Those who have spoken and written about the Li Tui (離 考) are very many, but they are not all to be believed. Unless one has thoroughly investigated the truth of a thing it is of little value. Pens and ink are plentiful enough, but many ancient records are lost. How are we to explain the word *Kiang* (江) except by the character *Kung* (公) meaning *open* or *public* and the character *Kung* (共) meaning *collective*, that is,

all the waters flowing together to make rivulets, the rivulets flowing together to make streams, and the streams becoming rivers? Surely all rivers are so; then why should so much be made of this particular one? The Yu Kong (禹貢) in the records of the Liang Cheo (梁州) waters says that in the Min Mountains the river was called *Kiang* (江) but farther east it was called *T'oh* (沱). If we do not thoroughly grasp the meaning of the Yu Kong (禹貢) we are likely to go far astray. I myself climbed to the top of the Min (岷) Mountains and saw how these mountains were joined to the Kwen Luen (崑崙) range; but only when they get to the borders of the Shuh (蜀) country are they called Min Shan 岷山. These mountain chains are several thousand li in length, but all are joined to form the spurs and peaks of the Min Shan.

These mountains occupy the north-west corner of the province and are divided into two sections, the inner mountains being much larger than the outer ones, the right spur of which reaches to Li Ya (黎雅) or Ya Cheo (雅州), and the left spur stretching to Mien-loh (緜雒) or Mien Cheo (緜州). The mountains on the east also join the mountains of T'ien K'ien (滇黔) or Yunnan and Kwei-cheo (雲貴). On the north they run on to Kwan Long (關隴) or Shen-Kan (陝甘). It has been said that south-flowing waters are called *Kiang* (江) and east-flowing waters are called *T'oh* (沱) but Hsia Yu Wang's (夏禹王) work was not confined to one place, and as a matter of fact this Tu Kiang (都江) flows past Pa-kwei (巴夔) or Tsongking (重慶) and Kwei-fu (夔府) to Wu-yang (武陽) *i. e.* Wuchang and Hanyang (武昌, 漢陽), where it is joined by the waters of the Tsu-shui (楚水) or Hu Kwang (湖廣), and whether these waters come from far or near they are all joined in the one *Kiang* (江) or river. The classic says that in the Min Shan (岷山) a river was opened and that this was done to open up all mountains and join up all the rivers into one. The Shuh (蜀) country has plenty of mountains and these mountains abound in springs. These springs have a considerable fall, some running for hundreds and others for thousands of li before reaching a level place. The character *T'oh* (沱) means "twisting and bending backwards and forwards," and even now the people of Shuh (蜀) call a deep bend in the river a *T'oh* (沱). Thus in recording the merits of Hsia Yu Wang it is said that the T'oh (沱) and the Tsien Kiang (潛江) (*i.e.* the deep and the flowing) rivers, were opened up; even the Ts'ai Shan (蔡山) and the Meng Shan (蒙山) were opened. The Ts'ai Shan (蔡山) is the range on the right, and *T'oh* (沱) and *Tsien* (潛) apply to rivers coming through this spur or mountain

range. The rivers and mountains of Shuh (蜀) all centre in Liang Cheo, and to call the Tsien (潛) and the Pi Rivers *T'oh* (沱) is a mistake made only by the present generation. The Han Ho K'u Chi (漢河渠志), the classic of the Han River, says that after Yu Wang (禹王) opened up the rivers the Mei (沫) waters were still a danger to the people until Li Ping (李冰) opened the Pao P'ing K'eo (寶瓶口) and left the Li Tui (離堆), thus dividing the waters into the Inner and Outer Rivers of the present day. The Hua Yang Chi (華陽志) says that the waters of the Mei Shui (沫水) came out of the Min Mountains, but Li Ping (李冰) sent men to cut the mountains known as the P'ing Huan Iai (平溷崖) and these men had to fight with the Shui Shen (水神) or water-spirits. There are people who say that the Li Tui (離堆) is in the Min Mountains. It ought to be clearly understood that Li Ping's work was not confined to one place and that the Tao Kiang (導江) is also called the Mei Shui (沫水). After Hsia Yu Wang (夏禹王) had begun to deal with the rivers this particular river flowed on the hill-side at one place and at the foot of the hill at another, and when it issued from the mountains and reached this part the waters flowed round the point and then passed on. Since there was nothing to stop the water when the summer floods came they wrought destruction wherever they went, and being assisted in their dreadful work by the water spirits they were a calamity to be dreaded. To avert this calamity Li Ping (李水) made an embankment, filling up a large part of the river bed, making a fish-jaw division and thus leading part of the Outer River into the P'i Kiang (陴江) or Inner River, by opening up the gorge and thus allowing the waters to flow through it. The two rivers, thus divided, sub-divide again into many smaller streams which irrigate the land wherever they go and thus make the Shuh (蜀) country a well watered garden. Li Ping's fame is thus spread far and wide. The maxim, "Dig the beds deep and keep the banks low" is of his own making, and he also constructed the water gauge indicating eighteen feet, by which the rise and fall of the water may be measured and floods averted. At the foot of this water gauge is a stone door-step and this is the *datum* for all his calculations and work, and he expressed the desire that future generations should follow his system.

The Kin Shi Wen (經世文) makes *ti tsoh ien* (低作堰) mean 'keep the banks low.' The Shui King Chu (水經注) makes out that the Li Tui (離堆) is in Lan-an (南安), probably Kia-ting (嘉定) and because of this some scholars make Kia-ting's Wu-iu 烏尤 (a sort of fish) to be the Li Tui (離堆). Legend has it that Chao Ioh (趙昱) of the Sui (隋) Dynasty

is the Ri Lang (二郎) but neither from personal investigation of for other reasons, and without personal investigation no clear idea of this can be obtained. Fan Ch'eng-ta (范成大) says that Li Ping (李水) divided the rivers in the middle and let off the waters by opening a gorge, but once you have seen with your eyes you can set aside all idle tales. As a matter of fact even to this day the Dragon's Nest is still to be seen under the Li Tui (離堆) and in the winter and the spring the cave itself can be entered, but during the time of the summer floods the place resounds with the rush of the water and even the temple above is shaken by the surging current. Even now that two thousand years have elapsed but little of this wonderful work is destroyed, and it presents a strange and beautiful sight. Here a yearly sacrifice is offered to Li Ping and to Ri Lang, but the rustics still call the place Fuh Long Kwan.

The Stone Rhinoceros.

石犀考

When Li Ping (李冰) opened the gorge he commanded his son Ri Lang (二郎) to make three stone images to check the floods, and also to make five stone rhinoceroses to control the water spirits. He set up the images in the middle of the river and calling the spirits together conjured them with an oath saying "*Kieh u chi kioh; muh u chi kien*" (竭毋至足 没毋至肩) that is to say "In drought do not leave the feet bare, in flood do not pass the shoulder" (i. e. of the stone image.) It was long believed that the water dare not pass these two points. His descendants carved these two sentences on a stone tablet so that they can never be forgotten, and this tablet is known as the Shi Shui Pei (誓水碑) or Enjoin-Water-Tablet. This tablet is in the river at P'en Hsien. As to the buried stone rhinoceroses, they are hidden and nobody seems to desire to investigate them, being satisfied with the common statement that the Li Tui (離堆) is in the Min Shan (岷山) at Lan-an (南安), and adding that at Kia Cheo (嘉州) there is a Ch'en Shih Hsien (沉犀縣) or Hidden Rhinoceros Hsien. Alas, these ancient matters become more confused the more they are talked about, and the more they are discussed by unreliable writers who hide the real issues. In Wen Kiang (溫江) and Shuang Kiang (雙江) these stone oxen are still to be seen, but the more you dig about them the deeper they seem to be fixed, and so firm that they cannot be moved. In Chengtu, in the stable of the Tartar General's Yamen, there is a stone ox, and a tablet which seems to be written in the style of the Ts'in Shih Hwang (秦始皇). Unfortunately, this inscription is almost illegible, but if

you listen carefully you can hear something like the sound of rushing water. The two remaining stone oxen are in the Kwan Hsien Outer River and at P'i Hsien North Gate respectively. There are in all quite five places where these are to be seen.

Before Li Ping opened the gorge the waters had nothing to keep them in check and flowed everywhere in a wild flood from P'i Hsien downwards, and the inhabitants of the country were much like fish and turtles. The south-west corner of Chengtu was all marsh and pools of water before the time of Li Ping, but from his time onward this land has gradually been brought under the plough. Later, when Wei Kao (韋皐) was in office in Shuh (蜀), he enlarged the city of Chengtu and many of the stone rhinoceroses became dwellers on dry land, and even the Rhinoceros Marsh (犀浦) at P'i Hsien retained only its name to indicate what it had been. During three dynasties, the Hsia (夏) Shang (商) and Cheo (周), the whole of the Shuh country was a lonely wilderness because nobody continued the good work begun by Hsia Yu Wang (夏禹王.) But can we blame them? Li Ping, however, had a benevolent heart and used his Heaven-sent wisdom for the benefit of the people in taking away the calamity that threatened them. His work has made the Shuh country for nearly two thousand years into a well watered garden and a "Heavenly Prefecture" (天府). Thus the merits of Li Ping and Hsia Yu Wang are not far from equal. It is said by some that Li Ping became transformed into the image of a rhinoceros, when fighting the water spirits, but this is only a legend. That he beheaded the Nieh Long (孽龍) on the other hand is true, but that was only the Ts'ien Kiao (潛蛟) or One-Horned Dragon, and not the Double-Horned Dragon (龍). Those who have benefits to bestow upon the people possess the capacity to do so not by chance but by divine gift. Men of this kind can command even pigs and reptiles, and all will be subject to him. This is not wild talk; wild talk only comes from those who have not thoroughly investigated the matter.

The Record of Efficacious Gods.

靈應記

The Hsien In Wang (顯英王) (the name given by Imperial authority to Ri Lang) is known to everybody, both ancient and modern, as so much has been written about him. In the reign of Kwanghsu (光緒) and in the Kia Shen (甲辰) year Viceroy Ting Kung Pao (丁宮保) repaired the chief building of the Ri Wang Miao (二郎廟) (temple) and when it was finished the prefect Wang Chu-uen put up the inscription

T'ien Kuang ts'ai shen muh ch'eng Hsiang (天貺異材神木沉香) i.e. "Like Heaven-given strange words this spirit-given timber is very fragrant." This inscription was put up because when the temple was being built a top beam had not been found as the people were expecting a special timber for that purpose, and quite unexpectedly a fine Lan-muh (香欄) tree was found, long and thick and every way suitable to be the top beam of the roof; moreover, it was over a thousand years old, and therefore a thing of very great interest. As the repairs proceeded some considerable fear arose that a certain high ornamental arch would fall and crush the whole temple building, as is recorded in the Kuan Kiang Pi Kiao (灌江備考), and therefore it was decided to pull down this arch, but all attempts to do so failed and work had to be suspended. There came, however, a violent thunderstorm which split this arch into two halves and the people carried it to one side and put it away, as it was now made clear that gods and men were of one mind with regard to its demolition. The finding of the tree for the top beam and the removal of this hindrance are evidences of supernatural intervention in this affair.

In the second year of the reign of the Emperor K'ienlung (乾隆) there was to the east of Kwan Hsien a place called T'u Shih Si (土石寺), where there grew six or seven large cedar trees, which the people intended to cut down for use in rebuilding the temple, but suddenly a violent thunderstorm came on and the man who was about to cut down these trees went crazy and declared that the Ri Wang P'u Sa, or idol, had cursed him. This incident created such alarm that everyone was afraid and dare not cut down the trees. It was noticed, too, that there were three ink lines drawn from the top to the bottom of the trees just as if the carpenter had marked them ready for sawing up. Here again we see the intervention of supernatural power.

The two sons of Tong Kueh-ch'eng (董國成) of Sha-wan (沙灣) were taken ill and developed signs of insanity. The father prayed to the Ri Wang idol, and the next day the neighbours saw signs that the house had been struck by lightning. The father declared that the idol had driven away the evil spirits and his sons were soon restored to health again. At the beginning of the XVIth year of Kwanghsu, the Peh T'iao Ho (北條河) overflowed its banks towards the east, the damage extending as far as Ma Ngan Ien (馬鞍壩) about twenty li or so away. For a considerable distance there was nothing but mud and pools. The local magistrate made great efforts to repair the breaches, being at work early and late, but he found great difficulty in finishing his task. By day he was present at the work, and by

night he paced his yamen, considering how the work could best be done. He was greatly distressed and in his trouble he betook himself to prayer for several days, until a message came to him, by a runner, that the waters had returned to their old course. The magistrate declared, "This is not of man's doing, and it is not of my doing; but in my five sleepless nights I have got into contact with the spirits, and they have done this thing. Who now dares say that the spirits are far removed from men?"

During the reign of the Emperor K'anghsi (康熙) there was a landslide on the Mengtong Shan (孟董山), which filled up the river and dammed the water, and it was three years before the obstruction was cleared away. Just before the landslide came, the residents of the district declared that they had had a vision in which the spirits told them that there was going to be a flood, urged them to flee and said that those who did not obey would be carried away. When the landslide came, houses and trees were carried wholesale into the gorge, damming it up, and the waters flowed into the Outer River by the Overflow. During this time the heavens were obscured by smoke and mist, and at Peh Sha (白沙) the people saw a spirit riding a horse in the middle of the river and managing the flood; but owing to the gorge being choked Chengtu escaped being flooded. This affair is even more wonderful than the turning back of the waters into their own channel by Lien Wu (連武) and now the people of Shuh (蜀) who live in other provinces all worship the Lord of the Rivers (川主) or Ri Lang (二郎).

As many have written of the merits of Ri Lang (李二郎) I need not say more, especially as what I record concerns the more recent events, and old people still living can bear witness to the truth of what I have written. On account of the great benefits which Ri Lang conferred upon the people, the Imperial Government has for two thousand years sanctioned the offering of sacrifices. Some will come after me who will question the truth of what I have said, but it must be remembered that scholars do not often write of these matters. If the times are good the hundred spirits are attendant to the needs of the people, and temples to the Lord of the Rivers are everywhere built. "The Five Classics" say that all who benefit the people should receive sacrifices from the people, which is not indeed a new idea. Thus in the spring of this present year, when the people were short of rain, the Water Official went to the Ri Wang Miao (二王廟) to pray for rain, and the rain came almost immediately. We therefore record his power to answer petitions. The Taoist priest, Lo Uen-an (羅元安) brought

forth many instances like the foregoing which he desired should be inscribed on this monolith, but we have selected only a few for record hereon.

Written by Pao Hsuin-luh (鮑尋樂); and composed by Hsu Ioh (徐煜): in the fifth moon of the first year of Hsuantung (宣統元年).

Changes in River Management.

The motto of Li Kong (李公) for the management of the rivers, which has been handed down from many generations, is quite simple, namely, "Dig deep the beds, and keep low the banks." From the Han (漢) to the Kin (晉) there were in all six dynasties; during the T'ang (唐) and the Song (宋) they strictly followed Li Kong's method without any deviation, even Ministers of State such as Chu Koh (諸葛) or U Heo (武侯) or Koh-liang (諸葛亮) of the T'ang Dynasty, (唐) Kao Si-lien (高士廉) and Peh Ming-chong (白銘鐘) of the Song (宋) Dynasty, Chang Yuin (張雲) of the Yuan (元) Dynasty, and Chao Si-ien (趙思言), all famous men in their day, following Li Ping's (李冰) method of management, and not daring to change it. Towards the close of the Yuan (元) Dynasty, Kih T'ang-p'u (吉當普), taking pity on the people, thought to do the work once for all and thus save labour and expense. He therefore made iron clamps called tortoises and took stone slabs and faced the river banks, but these were smashed to pieces by the force of the water. The people afterwards had again to revert to the methods of Li Ping. At the beginning of the Ming (明) Dynasty there was a district magistrate named Fu Kwang (胡光). During the reign of Kia K'ing (嘉慶) the present title of the Shui Li Fu (水利府) or Water Magistrate, was K'ien Si (僉事). Fu Kwang (胡光) and the Water Magistrate of that time, named Shi Ts'ien-siang (施千祥), together tried the iron clamp and stone slab idea, in order to save the yearly expenditure, but again the work was completely destroyed. Even whilst they were actually examining the work and declaring that it was solid and endurable a flood came and swept it away. It is clear, therefore, that the present method of deepening the bed and repairing the bank must not be changed.

The records of the Ming (明) Dynasty, and especially of the reign of Chin Teh (正德), made by the Water Magistrate, Lu Hsu (盧胥), and also the records of the reign of Kia K'iang (嘉慶) which were made in the Li Kong Ts'i (李公祠) or the Fuh Long Kuan (伏龍觀), were chiefly made with the idea of warning the people not to follow the example of Kih T'ang-p'u (吉當普) whose work only served as a mirror to shew up their failures. Unfortunately Hsi Ts'ien-

hsiang (施千祥) also followed their example. These officials all dabbled in water management for the benefit of the people, but those of the T'ang and Song Dynasties followed no new methods. It is true that all were animated by good motives, but it was a mistake to try new methods. In the reign of the Emperor Kwanghsu (光緒) Viceroy Ting Kung Pao (丁宮保) came to Kwan Hsien to dig the river beds down to the bottom, so as to uncover the iron bar and the iron horse. He also used stone slabs and iron clamps to make his work perfect, and he spent on it Tls. 100,000, completing it in the third moon of the year, but by the fifth moon the whole work was swept away by flood. Although the stone slabs and the iron clamps were swept away yet nobody ever dug the river so well, and much of his work in this direction remains to this day, so that the people cherish his memory.

The foreign method of doing these things would be to use machinery and to save human labour, but in a few years the currents would change, the river would silt higher and higher, raising the water-level above that of the land, and repairs becoming more and more difficult floods would become more and more common. If machinery can be used to carry out Li Ping's idea, well and good; but it should be noted that foreigners also follow Li Ping's method of keeping the river beds deep. This all makes for the happiness of the people. For the modern official the glory of this work will lie in its perpetuation by them, for the gorge is the medium of irrigation for the Chengtu prefecture.

The Abbot Lo Uen-an (羅元安) has been in the temple from his youth up and has heard from his predecessor Kia Tao-si (假道士) many details about the yearly dredging operations. This Kia Tao-si had closely watched the operations for many years and was so thoroughly conversant with the records and with the practical details that he was frequently consulted about the work by the high officials. He is now dead, but he formerly instructed the present abbot, who writes this record, very minutely in this matter. The writer deeply regrets that he did not pay the attention that he should have done to the words of Kia Tao-si; but he has since inspected the Kwan Hsien chronicles, which give the history of the work, and having abstracted the most important parts of them, has entered them in this record for a testimony to future generations. Being now about seventy years of age, and failing in bodily strength he beseeches his disciples to take the words of this record to heart in order to avoid the reproaches of the officials and gentry.

Written by Lo Uen-an (羅元安), the present abbot of the temple, in the second year of Hsuant'ung (宣統元年)

The Crouching Dragon Temple.

伏龍觀古碑

The virtues of Li T'ai Sheo (李太守) are still as evident amongst us as the black and oily waters of the cold cave. After Li Kong (李公) had subdued the dragon, Li T'ai-sheo opened the Li Tui (離堆), thus confining the waters of the river to one channel, a work which has stood the test of a thousand autumns. Formerly in the Shuh Tu Ta Ts'i Si (蜀都大寺慈) (temple) there was a bronze idol on the back of which were engraved four characters, Yuin Chen Shuh Ien (永鎮蜀眼) which mean, "Ever controlling the water springs of Shuh." Accompanying the writing is the wonderful signature of the prefect himself, Li, who also used the stone rhinoceros to stop the sea springs, which were of the time of Ts'in Shih Hwang (秦始皇). The Kwan Hsien Magistrate, Yieh Sih (葉燮) and the Water Prefect Pao Ioh (鮑越) having thoroughly investigated the record, gave it as their opinion that the stone rhinoceros and the writing on the back of the bronze idol were amongst the most important of Szechwan's antiquities. Moreover, Yang Tai Sheo (楊太守) when investigating the records of the Ming (明) Dynasty, acknowledged that Hsia Yu Wang (夏禹王) was the teacher and that the rule laid down by Li Ping (李冰) as recorded in the Shen T'u King (神圖經) was a maxim of the first importance. As Wang Chua (王爰) was associated with Li Ri Lang (李二郎) in the managing of the rivers and the subduing of the water monsters in accordance with the principles laid down by Hsia and Li, it is important that a tablet be erected and incense be burnt to his memory, according to ancient custom, so that the years may be without flood and good harvests may bless the people.

Herewith, therefore, we take the opportunity of erecting this monolith as a memorial.

Repairing the Tablet.

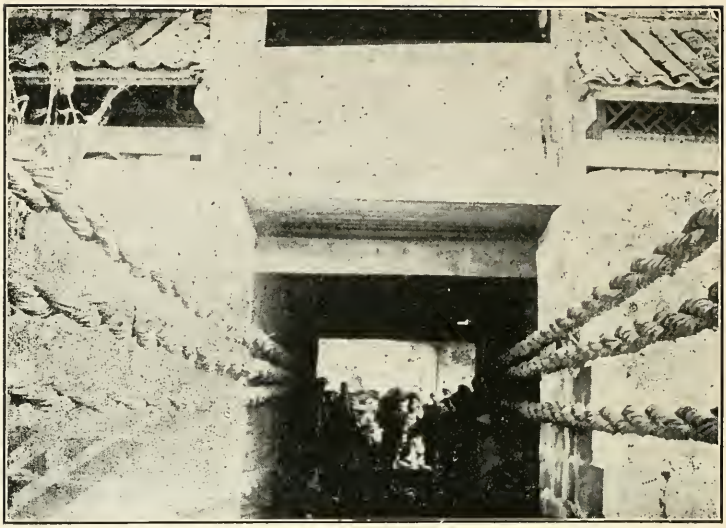
請補修三道崖碑

At the commencement of a work the whole scheme should be considered from beginning to end lest wrong methods be used, and the work be permanently injured thereby. At the Tu Kiang Ien (都江堰) and at the foot of Three-Bend Cliff (三道崖) there is a sharp rock jutting out into the river against which the floods strike and are thrown back as a great whirlpool. In the reign of T'ongchi (同治) the Water Prefect lightly listened to the words of the people, and broke off a corner of this rock, letting the water flow directly into the gorge. Some people say that this rock will

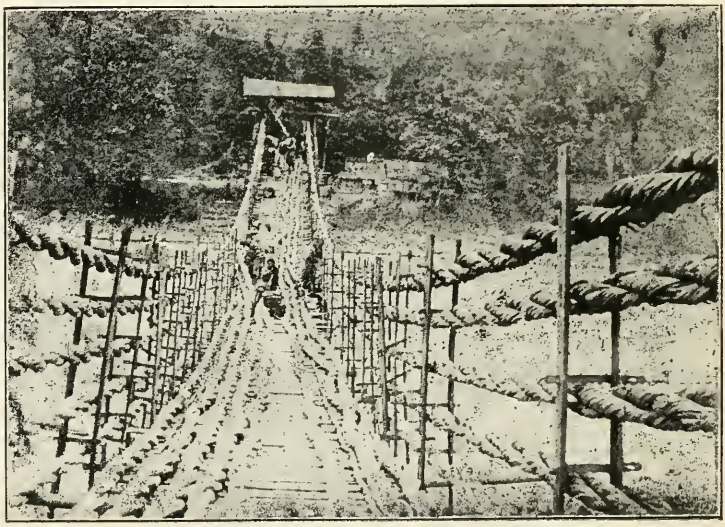
soon crumble to pieces, and that it ought to be repaired and maintained in its original state, in order to avert calamity. We were much disturbed by these sayings, as the rock has already been broken off for several years; but little or no change has taken place during that time. To use artificial means in repairing it would be even worse than to deface it, for the work of man cannot be compared with the handiwork of nature.

Crossing a Level Sliding Rope.

Bamboo Suspension Bridge.



End of Bamboo Suspension Bridge.



Repairing the Bamboo Suspension Bridge.

CHAPTER V.

Rice Cultivation.

栽 種 秧 穀

I. Methods of Water Supply.

The preceding chapters having been taken up with the subject of general irrigation, we now proceed to the subject of rice cultivation. From the first it must be borne in mind that there are still many physical difficulties to be overcome on the Chengtu plain, before the water necessary for rice cultivation reaches every field. In places to which the irrigation system does not extend, the people trust to wells, ponds, and to the rain, which is carefully preserved. In transmitting these waters from one point to another, many methods are used, some of which are very simple, others more complicated, and needing to be seen to be understood. The following are a few of the methods used.

Kien Shui T'ong (澗水筒) *or Water Viaducts.*

These are found both in the open and closed form. The bamboo is largely used for making the piping for the closed variety, whilst wooden troughs are used for the others to carry water across the hollows to the high land beyond.

Ch'ong Shui T'ong (撞水筒) *or Hydrant Pressure Pipe.*

This is worked by laying hollowed trees into a main stream, and thence up to a higher elevation as is to be seen at Kong Ni Ch'ang (公義場) in the Ts'ongking Cheo (崇慶州) district.

Kih Shui T'ong (級水筒) *or the Bellows Lift.*

This is a pump arranged after the style of the Chinese blacksmith's bellows, which pumps the water from a lower to a higher level. Sometimes four or five men are used to work this, the number employed depending on the size of the barrel, and the length of the crank used.

Fu Shui Teo (拊水蕘) *or Water Scoop.*

This is a basket or bucket with ropes fastened to both sides, a man holding each rope, and by a dextrous movement they scoop the water from the lower to the higher field.

Long-Kuh Ch'ae 龍骨車 *or Dragon-Bone Lift.*

This method is so called because all the joints of the lift are like the bones of a dragon, and move any way. It is said that this was invented by Tsi Kong (子貢) the disciple

of Confucius, who it is said had got a mechanical mind or 機心. This is a kind of wooden endless chain, the links being arranged something after the system of Venetian blinds, which are driven over a notched wheel, down behind into the pool, then up through a long trough open at both ends. The links of the chain exactly fit this trough and the water is drawn up through it, from the pool below to the higher ground where it is needed. This kind of lift is driven by hand, treadle, or horizontal bar worked by oxen, mules, horses, and even by men and women.

T'ong Ch'ae (筒車).

This is a skeleton bamboo wheel made of green bamboo fitted into a wooden axle. On the outer rim of the wheel bamboo tubes are fastened at an angle, and these tubes on reaching the river, on their downward course, dip up the water, and discharge it again when they reach the highest point, into a long wooden trough, which in turn discharges into bamboo pipes which carry the water to the fields beyond. This wheel is driven by the force of the current, and needs little or no attention after it is once started; these wheels are often twenty or thirty feet in diameter and much larger ones may be found in many places.

In drawing water from ponds this kind of wheel is sometimes used, but not so erect; inside the wheel a man treads, like a treadmill, thus driving the wheel round and raising the water to the desired level.

The supply of water is a very important matter, a good supply greatly enhancing the value of the land. In purchasing land its water supply is carfully defined, very often by "so many inches of incense by day and so many inches by night," that is to say the water is to be turned on to the fields for the period of time that it takes so many inches of incense to burn.

II. Religious Observances in Rice Culture.

Ping Yang Kioh (平秧局).

When the land is being prepared for receiving the sprouted seed, the farmer has certain idolatrous ceremonies to go through. He sets up a bamboo or sapling in the middle of his patch of land. This is called Ch'ah Yang-p'iao (插秧標); or he sets up a bunch of straw tied on a stick, the ends of which are cut short, making a kind of straw rosette; or a paper wind-mill may be set up. All this is done to get the favour of the Kuh Wang, (穀王) the God of Grain.

Pai Kuh Wang, (拜穀王) *Worshipping the God of Grain.*

This is done when the farmer sows his seed, when one stick of incense and a piece of cash paper are placed at the corners of the field, but are not burned. When the farmer is sowing his seed he does not speak, nor does he like to be

spoken to, lest his seed fall in patches, some places being crowded, and other places bare; he also fears that birds may come and devour his seed, if he speaks.

K'ai Yang Men (開秧門); *the Beginning of Planting.*

At this important season some people fire a big gun or petard, others fire off crackers, burn incense, candles and paper, the master bows and worships the field; before the workmen begin to pull the young rice, they get eggs and *momo* (steamed bread), tea and wine; this is called *hsia t'ien tsiu* (下田酒) or Going-into-Field Wine; sometimes also called *Si-kioh tsiu* (洗脚酒) Wash-Feet Wine. At breakfast dough strips are often prepared, because "it eats long" (喫得長); but rice, meat and wine are also spread. At noon, afternoon, and evening good food is provided, and at night the idols are worshipped in great style, and thus commences the planting season. When the second hoeing takes place the idols are also worshipped.

Hsien sin (獻新). *Offering the New.*

The first new rice of the season is first offered to the dog, then to the idols, and finally the members of the family may partake of it, but no stranger may eat of it. At this time pig's tripe is bought and eaten, as they say it "eats long."

The reason why the new rice is first offered to the dog is that, according to the legend, rice was brought to China from Burma on a dog's tail. It is also said of some people who are both lazy and greedy that the dog's tail is only a a certain length, and it will soon be eaten up, when they will come to poverty. When the rice is in full ear, it hangs in a manner that is said to resemble a dog's tail.

III. "Rice."

The word "rice" is represented in Chinese by four different words, each of which indicates a distinct stage in the growth or preparation of the grain. In the blade it is known as *Yang-tsi* (秧子). In the grain it is known as *Kuh-tsi* (穀子). In the hulled state it is called *mi* (米). When cooked it is *fan* (飯).

The cultivation of this staple article of food on this vast plain is almost wholly dependent on the irrigation system of which Kwan Hsien is the centre. This system not only insures against drought, but it also enables the farmer to drain the water from his paddy fields in the autumn, and take a winter crop of oil, wheat, or hemp, etc., from the soil, whereas the fields that have no such system lie flooded with water all the winter through and only yield one crop per annum.

IV. Land.

The land is owned by the gentry, by crofters, by temples, by guilds and also by such public conveniences as ferries, bridges, etc., which are generally managed by the

local official, or some representative body, for the benefit of the public. The gentry etc. generally lease their land to tenant farmers, who make a deposit of silver on the land as surety to the landlord; the farmer pays his rent in rice, either hulled or unhulled as the custom of the district may be, the spring crop belonging wholly to the tenant.

V. Value of Land and Rental.

Shang t'ien (上 田), or best land, is valued at 40 or 50 taels, or ounces of silver, per *meo* (畝, one-sixth of an acre), and yields a crop of 28 or 30 bushels per *meo*, having a rental of 18 bushels per *meo* (畝).

Chong t'ien (中 田), or medium land is valued at 35 taels per *meo*, and yields a crop of 20 bushels per *meo*, having a rental of 15 or 16 bushels.

Hsia t'ien (下 田), or poor land, is valued at 15 taels per *meo*, and yields a crop of 15 bushels, having a rental of 10 bushels. This land is generally outside the irrigation system limit, and yields only one crop per annum.

In the P'i Hsien (郫 縣) and Hwa Yang (華 陽) districts the best land is said to be worth 90 taels per *meo*, and second rate land 75 taels per *meo*, but there the local *meo* is larger than it is in other districts, and these two districts really have the best land on the plain. Some land requires liming to the extent of 70 pounds per *meo* to make the land warmer; such lands are often poor, and it is declard by some that the rice grown on limed land is not so good to eat.

VI. Rice Farming Finance.

To start a tenant farmer on a reasonably moderate holding requires well on to Tls. 100, as the following figures will shew. His house is included in rental, free of extra charge, but he has to purchase:

Water buffalo	Tls.	40.00
Plough	„	1.20
Fanners...	„	3.00
Pig-sty	„	4.00
Threshing-bucket	„	2.50
Harrow (21 teeth)..	„	1.20
Roller	„	1.20
Drying Mats...	„	6.00
Seed	„	2.00
Making a total of...	Tls.	61.10

He has also to supply hooks, rakes, baskets, buckets mattocks, measures, harness, etc., besides his household goods and deposit on the land.

VII. Kinds of Seed Rice.

There are several kinds of seed rice, amongst which are the following:

(*a*) *Early Rice.* Kiu shih tsao (九十旱)
Kuei yang tsao (桂陽旱)
Pah shih tsao (八十旱)
Leng shih tao (冷水旱)

(*b*) *Common Rice.* Si ku lien (細穀蓮)
Eng choh huang (硬脚黃)
Pei pei loh (背背羅)
Hong mao ta kuh (紅毛大穀)
Ih shan huang* (一扇黃)
Peh kuh ri* (白穀兒)
Ta kuh tsi* (大穀子)

* These are the varieties most commonly used.

(*c*) *Glutinous Rice.* Kin sien huang (金線黃)
Peh tsiu kuh (白酒穀)
Wan tao kuh (灣刀穀)
Pien yang kuh * (編牙穀)
Kan tsi kuh* (稈子穀)

* These are half glutinous and half like the common rice

(*d*) *Scented Rice.* Siang kuh (香穀)
Ih tsi kuh* (薏子穀)

* This is half black and half white.

Scented rice is considered a luxury amongst the Chinese and is often used as a New Year's present amongst the officials.

(*e*) *Red Rice, or Hong kuh tsi* (紅穀子.) It is believed that for this kind of rice there is no special kind of seed, but in certain years the blade of the rice comes up red like blood. I myself saw some in 1902, and on making enquiries about it I was told there was going to be bloodshed, and that very autumn the local Boxers caused trouble, and blood was shed. It is said that in the year in which Lan Ta-shun rebelled most of the province shewed this curious omen, but it is pretty certain that there is a definite kind of seed for this rice.

VIII. The Seed Bed.

Shortly after Tsing Ming, (清明) generally about the 4th April, the sowing of rice seed begins, but if the season should be a cold one it is usual to wait for warmer and sunnier weather. The land is ploughed up, whilst water fills up the furrows, and afterwards it is harrowed with the 21-toothed harrow until it is perfectly level. A few days earlier the seed has been put into water to soak and allowed to stay there for two days, after which it is taken out and placed in baskets with wet straw over and all around; heavy stones are then put on the top to press it, and fresh water poured over it daily, until it sprouts. The sprouted seed is

then taken and thrown on the face of the water in the previously prepared bed, which is now in a state to receive its sprouts, one *meo* taking about five bushels of seed, so that one *meo* of seedling will plant about 40 *meo* of land. After sowing, sunshine is necessary, as if it is dull, rainy weather the sprouts get blanched and another sowing is necessary.

IX. Preparation of Ground.

In those districts to which the irrigation system extends, the preparation for the rice crop begins immediately after the gathering of the spring crop. This is the farmer's busiest season. Reaping, ploughing, harrowing, and planting follow closely one upon the other. The early stages in the cultivation of rice are a very miry undertaking as the following will shew. As soon the spring crop is removed, the rice field dikes are pared down and repaired, the water let in, and the plough drawn by an ox or water buffalo breaks up the field, the water filling the furrows close behind. When the farmer has finished ploughing he examines his dikes, which are made of mud, to see that no leakage is going on; then he starts his harrow, the buffalo half wading, half swimming, pulls the harrow forwards and then backwards, the man either wading in two or three feet of mire, or standing on the top of the harrow with a goad in his hand to drive the buffalo. At this season the buffalo or oxen are fed on green oats, sown the previous autumn, which at this time are just at the earing stage. The Chinese believe this is the best thing to feed a buffalo upon, when doing this extra hard work; they also believe in letting the buffaloes wallow in pond or stream for an hour or more at a time so that they can bear the heat. The harrowing continues till the clods become but mire and slush, when the water is allowed to settle and planting is commenced. Some of the small crofters dig their land, and can dig about three *meo* (畝) daily; a man and ox can plough about four *meo* (畝) in a day. Ten years ago a man and his ox could be hired for 200 cash each per day, with food for man and beast, and pork and wine for the man; but now the cost has risen considerably.

X. Planting Out.

When the rice in the seed bed is four or five inches high, the water is allowed to run off and the *yang tsi* (秧子) is now dug or pulled up in bunches and taken to the rice field to be transplanted. It is planted in patches just over one foot apart with eight or ten plants in a patch; the planter, wading in two or three feet of slush, walks backwards and plants four rows at a time, and without line or gauge of any kind he plants an almost perfectly straight line. In

some places, the manure from the cesspools is mixed with dry riddled earth into a kind of mortar, which is placed in a tub, and pushed alongside each planter. After the planter has got his handful of *yang tsi* (秧子) ready to plant, he dips his hand into the manure bucket and takes out a handful and places it in the earth at the root of the plants. This is called *tsai p'en p'en yang* (栽盆盆秧). If the work is contracted for, he gets paid at the rate of forty cash per *meo*, eating the farmer's rice, pork and vegetables, and drinking his tea and wine, which are supplied in abundance at such times. He can plant about 25 *meo*, thus making a wage of 100 cash and his food. Some people drop the seed direct into the field instead of planting, but this is rather the exception than the rule, and is generally done only on the *t'ong shui t'ien*, (冬水田), which is marshy land, which often neither man nor beast dare enter without a raft, so the digging, levelling, planting and reaping are all done from a floating door or raft. The planting must be done by midsummer; if planting is left later the rice does not ripen.

XI. Hoeing.

About eight days after planting, the farmer goes round and fills up any bare patches in the rice field, and about fifteen days later, the water is dried off and the first hoeing begins. This is done with an iron rake with long sharp teeth, and a long bamboo shaft. Before the hoeing is begun, however, manure is scattered to the extent of twelve coolie loads, or twentyfour buckets, per *meo*, excepting in the case of land which has recently grown hemp, where the ground is too rich owing to the leaves from the hemp crop, and some leaves have to be taken from such a field to the next in order to relieve the hemp field.

On the other hand wheat-producing land is poor and needs manuring to the extent of thirty buckets per *meo*. The cost price of manure is about thirty cash per bucket. Besides this the land has rest from the winter crops in regular rotation. Also crops of beans, *shao tsi* (苕子), a climbing clover) and *Kiang-si shao* (江西苕) or Kiang-si clover, are grown and ploughed down for their nitre; wood ashes are saved for their potash; bones are burned and sown on the fields; and, in some places, broken or crushed bones are planted with each patch of rice, all this being done to enrich the soil.

In fields where the seed has been dropped in, the patches are more irregular, almost defying the use of the rake, so the feet and hands are used for hoeing. After the first hoeing the water is again allowed to flow in, and remain for about fifteen days, when it is once more drained off and a second hoeing takes place. After this the water is again allowed

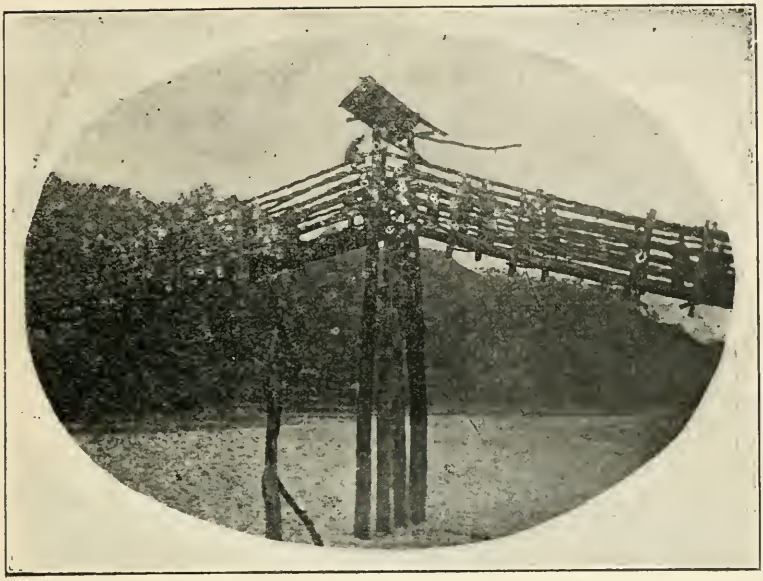
in, the field is covered to the depth of about three inches, and remains so till within a short time of harvest, except with certain special kinds of seeds. The water is now dried off to make the plants take a firmer hold of the soil so as to avoid the crop's falling down so easily. If after the second hoeing no water is obtainable, the crop is nevertheless secured, but in order to obtain a full crop plenty of water, sun, and rain are necessary.

XII.—Earing and Reaping.

When the rice begins to ear, then the tares also become manifest; owing to the resemblance of the leaf, it is impossible to recognize the tares earlier, and only experienced farmers can see any difference in the *si pai tsi* (細稗子) which is about the same height as the rice. The *ta pai tsi* (大稗子) grows higher and the heads are larger. The chief distinguishing mark is that the tares are smooth, and the rice rough in the blade. The seed of the tares does not rot in the earth as that of the rice does, and is very difficult to eradicate.

About the middle of July the first sign of earing is to be seen, and six weeks later harvest is in prospect. When in full ear and each head hanging like so many loose tassels, harvest may be expected in about fifteen days. The water is drained off and the ground allowed to dry in readiness for the harvest. In all about 120 days are necessary from the planting to the reaping of the general crop, and about 80 days for the early rice. During the earing season the following two things afflict the crop *c'hi ti-ho* (起地火) or mildew, and *ko feng* (過風) or blasting. The reaping is all done with the sickle or reaping hook and the rice is laid carefully down in small bunches to dry. The threshing bucket or *pan-tong* (扮桶) 5 ft. 6 in. square is then brought, and each bunch of rice is taken up, swung round the man's head, and beaten against the edge of the bucket, dexterously allowing all the grain to drop into the bucket. Two men generally strike alternate blows, each bunch getting about six strokes. The grain is then carried home in baskets, the straw is set up in the fields to dry, the ground swept by the female or juvenile members of the family, and every possible grain gathered up. The rice is winnowed soon after being taken home, when straw, chaff etc., are separated from the grain.

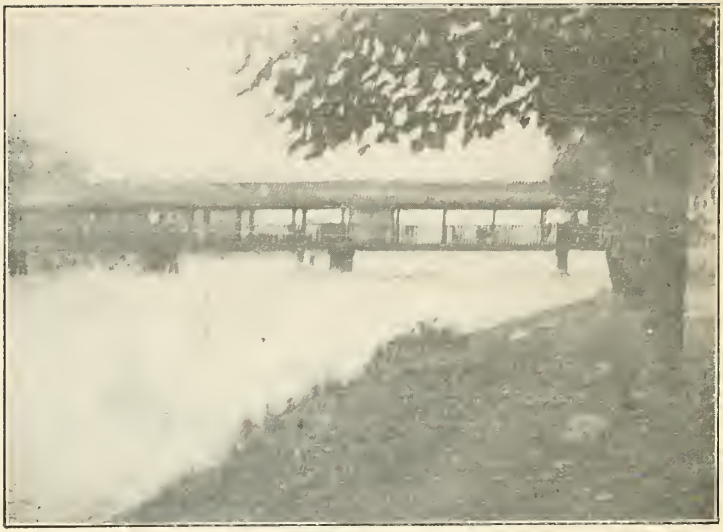
The tenant farmer then measures out the grain for his rent, and the remainder is spread out on mats in the sun to dry and get ready for the mill. If the weather is wet, the rice sprouts indoors, and even out in the fields, and may become a total loss. A good man can reap and thresh nearly one *meo* in a day if he is working for



Repairing Rope Suspension Bridge.

Iron Bridge.

With Ornament and Iron Bars Supporting Road-Bed.



ROOFED BRIDGE, SOUTH GATE KWAN HSIEN

MULLAH AND STUDENTS.

himself, but a hired man only accomplishes about half of this, his pay being 70 cash per day, his rice, meat and wine being provided for him.

XIII.—Grinding.

After being thoroughly dried the rice is taken to the mill to be hulled, the mills either being driven by water or oxen, the former being much superior. The better the water power, the whiter the rice is when produced on the market. Ten bushels of grain produce four bushels one pint of rice, or thereabouts, thus losing more than a half. The price paid for the grinding is 30 cash per *tan* (石) or ten bushels. If done on the tithe system the miller gets *pan sheng* (半 斤) or half a pint of rice for six or seven bushels of grain. The husks are sometimes left with the miller, but usually each person takes his husks home to feed the pigs.

* * *

It is estimated that each ordinary adult eats about 12 bushels of rice per annum, the common rice only being used for general eating. Glutinous rice, (*tsiu mi*, 酒 米) is used for *lao tsao* (醪 糟) fermented rice, also for *tsi pa*, (糍 粑) *mo-mo*, (磨 鬱) *tsong tsi*, (糉 子) *mi su*, (米 酥) and such-like cakes and sweetmeats. Scented rice is a luxury and is mixed with the ordinary rice in well-to-do families, thus improving the taste. Here in Kwan Hsien the bushel (which varies in different districts) is about 335 catties and the average price is about 950 cash per bushel. It is always a little dearer here than in other parts owing to part of the Hsien being hill land and therefore not producing rice; rice is transported in one continual stream into the mountainous parts of Mao Cheo (茂 州) Li-fan T'ing (理 番 廳) and Mong Kong.

Besides, a larger amount is required annually for official rice to supply the navvies in digging the river beds in the winter. When the new rice comes in, it is generally cheaper, thus there is room for the speculator or *tuen fu* (屯 戶) who buys up large quantities, and stores it till rice rises in price. When rice is dear, the people refuse to allow it to be moved from one village to another, stopping the coolies, ripping open the bags, etc. for fear the supply will run short. The *teo fu* (斗 戶) or official rice measurer, often squeezes the people, by not allowing the rice to settle into the bushel measure, then the top of the measure is scraped so hard, that when weighed it often comes short of the fixed weight. Every district city has an official granary, indeed every market town has its reserved store, which is sold out in time of famine, or siege. In Tsongking Cheo this grain amounts to three hundred thousand bushels.

CHAPTER VI.

Bridges in Western Shuh.

No description of the irrigation works or the adjacent country would be complete without some mention being made of the many bridges which span the network of rivers, and irrigating dams of the country round; and not only make travelling possible, but greatly add to the beauty of the landscape.

The rivers are crossed in a great variety of ways, ranging from stepping stones to elaborate structures. In high water the only reliable way of crossing from the east to the west of the river system is by the large suspension bridge outside the West Gate of Kwan Hsien. During the medium and low water season, ferries are kept going which transport the traveller free of charge from one side of the river to the other; these ferry boats, however, dare not cross in very high water for fear of being capsized, or driven down the river and wrecked; these boats, in ordinary times, are only kept in place by being fastened to a rope attached to a tree on the shore. These ferry boats are managed something after this fashion. A long, strong bamboo tracking rope is fastened tightly to the prow of the boat, and then to a pillar or other stable object on shore, say five hundred yards up the river; then, half-way between the boat and the pillar on shore, is another strong rope stretched horizontally across the river; this rope is supplied with a sliding cylinder to which the suspending rope is attached, so that whenever the head of the boat is loosed and headed across the river by means of the helm, the boat, very often with only one man in charge, slowly but surely swings across the river. These ferries are generally only used at places where it has been found impossible to build bridges, and are as a rule quite safe, except in very high water. Accidents do occur, but are as a rule due to overcrowding. At some points it is necessary to pay a small fee, but as a rule the upkeep of the ferry is administered by a public body which has lands which they hold in trust for the upkeep of the whole. In certain places where neither ferries nor bridges can be conveniently used, a raft made of bamboo poles is used. This raft is drawn up to the foot of the swiftest water, and people and merchandise of all kinds shipped on board. The individual kneels

down with his belongings in front of him holding on with both hands; when all is in readiness the raft is pushed out into the rapid; two men strive to keep the head of the raft as much as possible to the stream, and with the speed of an arrow shot from a bow the raft shoots across to the other side of the river.

THE SLIDING ROPE.

This seems to be the most primitive, and in a way the most ingenious and inexpensive method of crossing the river. The rope is made of bamboo strips plaited tightly together to a thickness which takes both hands to span, and this rope is stretched across the river, in some places quite horizontally; in others it starts from a high cliff on one side and descends with a sharp slope to a lower bank on the other side. A person desiring to cross has to slide across on this rope: in the case of the sloping rope, the force gained at the start generally takes him to the landing stage, but in the case of the horizontal rope it only takes him a little over half-way, and the remainder of the way has to be accomplished by pulling himself hand over hand to the landing stage: This process looks to the uninitiated both blood-curdling and amusing, and looked at from a distance with a basket on his back striving for the landing stage, is both instructive and exciting. The crossing is effected somewhat as follows, although the process of trussing up seems to vary in different places. Each person purposing to cross provides himself with a piece of rope and a sliding cylinder, made of wood or bamboo, the former material being the more common. The cylinder is made in two halves slightly larger than the sliding rope and polished inside, and is placed one half on the top, and the other half underneath the suspended sliding rope; one end of the rope is then passed first under the arms, then under the thighs and back, up under the other arm and then fastened tightly to the sliding cylinder; the individual then clasps the cylinder with both hands, walks to the edge of the starting stage, sits down with the rope under his thighs, lifts his feet with a spring from the ground and, whiz he goes humming across the river. In some cases the crosser carries a bamboo tube filled with water which he pours on to the sliding rope as he crosses, just in front of his cylinder; this is done to reduce the friction, which is considerable, and insures being carried farther across before the force is expended. Timber and other weighty articles, and even livestock, are slung across a river in this way, by using two or more cylinders as the case requires; these heavy articles, however, scarcely ever reach the landing stage even in the case of the slanting rope, the great weight causing considerable sagging of the sliding rope, and thus they have almost invariably to be drawn

to the landing stage by the means of a rope, which some one has to slide down and attach to the articles under transport. The length of these ropes varies of course according to the needs but ranges in length perhaps from one hundred to one hundred and fifty yards. Their height varies also at different points, but in the case of the horizontal rope, the nearest part to the river might be said to be thirty feet or even less. The primary cost of construction is insignificant, and they meet the needs of a simple and primitive people whose wants are few, and who have been accustomed to seeing and crossing them from youth. Their presence in this district and neighbourhood is a silent reminder of a race who have gradually been pushed out by the forces of Chinese civilization.

THE TREADING ROPE.

It has just been said that the crossing of the sliding rope was rather a terrifying process, but to the writer the treading rope is more terrifying still. This bridge, if such it may be called, is composed of two bamboo ropes of about the same thickness as the sliding rope, which are stretched side by side across the river, as level as these ropes can possibly be hung. Higher on either side is a steadying rope, but these ropes are about five feet apart, and about level with a man's head, both sides being thus open and unprotected with the exception of every twenty feet or so, where there are guiding ropes which bind all four ropes together. The person crossing has to tread this double rope, with no hand rail, with perhaps a load on his back, and the side ropes too high, and too far out to be of any practical use to him and a roaring torrent fifty feet blow. Accidents there are, though they are fewer than one might imagine, but in every case it is certain death with considerable mutilation, if the body is ever recovered at all.

THE BAMBOO SUSPENSION BRIDGE.

This is the final, most elaborate and most expensive form of bamboo structure and their existence further West and North seems to indicate that their original home is in that direction; moreover, the Wa-Sz tribe have just recently erected a new one south of the city of Wen-chuan (汶川) to enable the people dwelling toward the south to reach the city more easily than formerly, when they had to go to the north side of the city to cross over. These bridges are many and vary in length and quality, still I think that the one situated a few li outside the west gate of Kwan Hsien city is the king of them all. This bridge is about 900 ft. long 25 ft. high and about 10 ft. wide, and is thrown across the Min River just below the first main division and has seven spans, supported in the centre and at both ends by solid

masonry, and at suitable points in the river bed by piles driven deeply into the earth.

There are twenty ropes used in the structure, ten on the bottom and five on either side. The ends of the side ropes are passed through holes in strong perpendicular pulleys built into the masonry at both ends; another hole is made, into which a strong wooden lever can be inserted to twist the pulley round, and thus tighten up the ropes. The side ropes are kept in place all along the bridge by being passed through a system of wooden frames of equal size and height, each pier providing strong supports of a similar kind. The bottom ropes are fastened to a series of strong horizontal pulleys built into the foundations of the masonry at both ends of the bridge; each pulley having a rope passed through it which may be twisted round like the side ropes, thus tightening the ropes to their proper level. The repairs of this bridge take some days, twice each year, new ropes being put on the bottom, the bottom ropes transferred to the sides, and the former side ropes discarded. The flooring boards are laid crosswise and fastened down on both sides by another smaller bamboo rope running the whole length of the bridge. Besides the half-yearly repairs there is also occasional tightening of the ropes, which sag down owing to the heavy traffic across them, and the boards are also continually being stolen or broken, when they drop into the river, and it is with the greatest difficulty that animals can be got across it; and as this is practically the only way of taking an animal from one side of the river to the other, it is quite common to have a pony blindfolded, girded with ropes and carried bodily over. The bridge swings considerably when being crossed, and people who are light-headed dare not walk across it, and some even get sick. This is an important thoroughfare as all the traffic to and from the great west road passes over it. It is also on the main road from north to south, and in the event of high water it is the only connecting link between the eastern and western halves of this county. The following is taken from a tablet referring to the rebuilding of the bridge after it had been swept away by a flood. "The rope bridge outside the city is an ancient thing, which made me have a desire to see it with mine own eyes, so in the spring of the Wu Tsz year I visited the place. On arriving I beheld the bridge rising tier upon tier almost like a rainbow, or like a huge snake joining the north and the south banks of the river together; its pillars were newly set up; its ropes newly plaited; its footboards newly laid. I asked the people if this was the old bridge or a new one, they answered that the bridge is of old but it has been made new." What

was said by the people on that particular occasion can almost be always said, for the bridge is of old, but is ever being made new. The expense of upkeep is met by money drawn from public lands set apart for the purpose.

IRON SUSPENSION BRIDGES.

The initial expense of the iron bar suspension bridge is much heavier than its bamboo rival, but in the long run it is much cheaper as the expense of upkeep of the bamboo variety is much heavier than the iron one, the bamboo ropes requiring to be changed twice a year, whilst the iron will last a life-time or more, the only item of expense being the renewal of the footboards, but each variety has its own particular advantage, and what is suitable in one place has been found impracticable in others.

At Kiai Tsz Ch'ang, on the upper tributaries of the Min River, there is an iron bridge very beautifully situated. In the spring or summer, looked at from the lower side of the village, a pretty scene presents itself. Behind lie the mountain slopes, whilst in the foreground is the river and breakwater; in the centre is the village with a small pagoda peering out from amongst the trees; spanning the river is the bridge, whilst on the near right are huge water-wheels which elevate the water from the dam to the higher land above. The bridge itself is only about a hundred yards in length, and bridges the river in four spans, supported in the centre and at both ends by solid masonry piers, the iron bars being about 20 feet long and 3 inches or so in circumference.

These bars are coupled together and laid across the piers about one foot apart; each bar is secured at both ends by means of a stout iron pin which is soldered into heavy blocks of stone. At either end the bars are taken up a slanting slope of polished stone until the level is reached; this considerably breaks the strain upon the fastening pins at the extremities. There is a handrail of iron on either side kept in place by iron stanchions. Over each pier and at either end there are ornamented roofings and the whole is faced with boards which are kept in place by a bamboo rope on either side. The structure is safe and steady whilst crossing, giving little of the motion experienced whilst crossing the bamboo rope-bridge It must be twenty feet above the river bed, but sudden spates sometimes swell the river so that it overflows the facing boards.

STONE BRIDGES.

Stone arches are very common all over the Chengtu plain. To the passing observer, however, it would appear that those bridges situated to the north of the capital are more pointed than those toward the south, the arches being rounder and the top flatter than the former. Some fine

specimens have been destroyed by floods, whilst others have become practically useless owing to the river changing its course. This is so common a thing that a poverb runs something as follows "San shih no tong sz shih si" (三十河東四十西). One conspicuous instance of a bridge being left by the river is the case of the large bridge eight li west of the city of Tsongking Cheo. It is about 220 yards long, 11 yards wide and about 80 ft. high, with 11 red stone arches and concrete top, and though it only dates back some 60 years there is now no water under it to speak of. Others of a similar kind but smaller in size abound everwhere and are not only interesting reminders of an ancient civilization, but are also both ornamental and useful. There are also stone column bridges in abundance, built with stone columns ten or twelve feet long, and varying in thickness, but commonly about a foot square; these are thrown across the stream resting upon stone piers, while the parapets are made of long stone slabs slipped into grooves in upright stone stanchions.

ROOFED BRIDGES.

Roofed bridges are also very common and are met with not only all over the Chengtu plain but also in the mountain region to the north and west. The idea seems to be rather ancient, for Marco Polo, writing of Chengtu bridges, describes them thus: "From one extremity to the other there is a row of marble pillars on each side which supports the roof, for here the bridges have very handsome roofs, constructed of wood and ornamented with paintings of a red colour, and covered with tiles. Throughout the whole length there are neat apartments and shops where all sorts of trades are carried on." The marble pillars have disappeared and their places taken by wood, but otherwise the description is pretty correct of many of the roofed bridges even to this day. The primary use of the roof would seem to be not so much for trading purposes, as for the protection of the structure, for in many country places where no business is ever transacted the construction is the same, the only occupant being the beggar, who finds in them a cheap shelter. These bridges are generally supported by wooden piles sunk deeply into the bed of the river, about eight or more in a row, the centre pile being erect, whilst those on either side slope more or less towards the centre one and thus support it, the whole being clamped together with iron clamps. The girders are made of huge timbers 50 or 60 feet long, hauled from the country on wooden rollers. These timbers are drawn across the piers and clamped together, then made roughly level with the adze, after which the whole is floored crosswise with strong

boards and nailed down tightly; then again heavy timbers are laid lengthwise across the centre, where the heavy traffic is, and these are also nailed and clamped to keep them in position. On the top of this a framework, very similar to that used in building a house, is erected, roofed and painted, and makes an admirable bridge both for traffic and for shelter and trade.

TEMPORARY BRIDGES.

These roofed bridges are roughly similar, the piles being driven and fixed in the same way, but the bridge is simply made up of large, and often crooked, trees sawn into two halves, and thrown across the breach with the rough side downwards; owing to the crooked nature of the timbers, huge holes are thus left between the various blocks of wood, which sometimes slope one way and sometimes another, whilst the slender part of the tree is often very shaky; the handrail at the side is of the most rickety character, and often out of reach, when these "slings" are well raised from the torrent below, or in the time of low water, they are not so formidable, but when they are low and the water almost touching your feet, or when there is a raging torrent underneath, it needs not a little nerve either to walk, or be carried across one of these switchback arrangements. Some of these temporary bridges are supported by rough tripods instead of piles, whilst others rest on large baskets filled with cobblestones placed in the centre of the river but swept away by the first rise of the water in the spring. If the stream should be small sometimes a single unpolished tree with a bamboo handrail is all that is supplied, or a few bamboo or palm trunks may serve the purpose; a few small trees with brushwood laid on the top and covered with earth do service to the traveller. A single slab, a singe stone column, two or three old boats anchored in the stream with a few planks thrown across, sometimes serve the purpose in low water, whereas a ferry is required in the rush. These and other methods are used to transport people and merchandise from one side of the river to the other, and all bear witness to the ingenuity, resourcefulness, patience and self-help of the Chinese people.

MUHAMMADAN MULLAH AND DEACONS.

TREE THAT FELL IN 1913.

CHAPTER VII.

A Study in Islam.

教門規則

The Chinese have always regarded the incoming of a new religion as a precursor of trouble, and in the case of Muhammadanism this has been no exception, as a large proportion of Chinese rebellions and provincial strifes have been either directly or indirectly connected with Muhammadans.

Those living in this district of Kwan Hsien (灌縣) say that they migrated from Turkistan, and many of them still speak of Turkey as their country, and the Sultan as their Spiritual Head and religious potentate. The physiognomy of this people is distinctly foreign and quite different from that of the Chinese, many of them being tall in stature with oval faces, aquiline noses and dark skins; sometimes they have long beards, or short stunted moustaches; as a general rule they adopt the Chinese dress with the queue, but a few have clean shaven heads and faces.

They arrived in this city during the reign of the Emperor Kien-long (乾隆) and an old gentleman with whom I talked recently can trace his descent on Chinese soil for forty generations. Undoubtedly there have been some proselytes from amongst the Chinese, but in this place, within the memory of the oldest Moslem only one family has embraced the religion, and that was manœuvred by the ties of marriage, a Muhammadan of wealth betrothing his daughter to a heathen on condition that he embraced the faith. I have only known one person to leave Islam, she being a woman of doubtful character who married a Chinese.

From the foregoing it may be concluded that the increase in numbers is almost wholly from within or by immigration, and they trust chiefly to the study of Arabic and to the reading of their prayers in that language for the perpetuation of their religion.

In Kwan Hsien we have two mosques, and about 140 families of resident Muhammadans, but we have a large number of visiting Moslems from the North and West, thus making this more of a Muhammadan centre than it otherwise would be. The patrons of each mosque keep their own property in repair, the mosques varying in size,

wealth, and renovation; the best one here owns property to the value of six hundred thousand strings of cash; most of the interest which accrues from this money goes to the Mullah, towards the expenses of teaching Arabic, whilst the remainder goes towards the poor amongst the faithful. The cost of lighting, water-carrying, for bathing before worship, and whatever other expenses there may be, are made up by freewill offerings of those attending the mosque; there are three elders elected by the congregation who look after property and reckon accounts once a year.

The Muhammadan religion here as elsewhere consists in so many external forms of worship; prayers, washings, fastings, hatred of idolatry, pig's flesh etc. They believe in one True God and Muhammad as His prophet: also, in angels, patriarchs, demons and spirits. Prayer is observed five times daily, though only very few attend except on Chu Mü (主 日) Sabbath.

They invariably wash before worship, for "small li-pai" (小禮拜). They wash in the following order :—teeth, nose, eyes face, right arm, then left arm to elbows, head, right foot to knee, then left foot to knee: socks, shoes and clean garments are then put on, and the worshipper is ready. On the Moslem Sabbath the foregoing ritual is observed, but in addition a shower bath is administered. A wooden bucket is suspended from the roof with a hole and wooden plug: when the water is desired, the plug is removed and the water runs over the head and down the whole body: for the minor ablutions water is poured from a pitcher with a spout, no water being allowed to touch the body twice. This pitcher is used as a signboard for Muhammadan foodshops, to indicate that the food exposed for sale is clean according to Muhammadan requirements. The hands, face and mouth are washed before meals.

The mosques are of Chinese structure and have no minarets: they are built by the gifts of the faithful: in the outer courtyards are the Mullah's private apartments, students' dormitories and class rooms, with guest halls and ceremonial washing rooms. On a table at the entrance to the main building is placed a tablet to the Emperor of China. Some Muhammadans say it is put there to keep out rowdy Chinese; others take care to point out that if it was for worship it would be placed at the top of the Mosque.

The Mosque is a large and impressive hall, almost four-square, perhaps slightly deeper than it is wide; at the top, in the centre, is "the prayer niche." This is a false door on which a flower vase and flowers are engraved in gilt; to the right is a short flight of steps and a small platform from which the Koran is read on the Moslem Sabbath; in the

centre is an incense urn in which incense is kept burning during prayers. The Mullah was careful to explain that the only object in burning it was to overpower obnoxious smells. On the left is a small, oblong table on which the Koran is placed when not in use. The building is lighted by foreign lamps, is floored with pine boards, and the walls are without adornment, with the exception of a few texts from the Koran said to be the chief articles of the faith. The floor is covered with rows of mats, on which the worshippers sit or kneel during worship, as there are no seats in the building. On the left near the door is placed the catafalque, inside which is placed a red-coloured bier together with poles and carrying tackle for carrying out the dead. On the left hand are two *Kueh* (棹) or coffins of heavy wood without bottoms and of varying quality to suit the purse of those needing to purchase.

The front entrance is quite open, and the large folding doors are removed and left unclosed night and day. During worship the officiating Mullah wears a green robe and coloured turban or sometimes a red hat of Chinese style. His position is in front of the prayer niche, where he sits tailor-fashion. All worshippers wear a peaked cap, press up ears with their thumbs and kneel. No women are allowed in the mosque, but males of twelve years old or over may join with their elders in the worship. On entering, all shoes are taken off; all turn towards the prayer niche, or towards the West, which is the direction of Mecca, the Mosque frontage being towards the East. The whole worship is conducted in Arabic, and as the Koran has been forbidden to be translated into Chinese, a great number cannot read Arabic, even many of the Mullahs study it under great difficulty, therefore the worship is to many a mere matter of form. The fact that they are monotheists does not seem to have improved their morals: they practise polygamy, and their women are almost wholly uneducated and superstitious. They conform to the heathenish custom of foot-binding but though not allowed into mosques, they are supposed to worship in their own homes.

The Moslems are adepts at deception and most slippery in their business relationships: they enter freely into partnership with the Chinese merchants.

Opium is forbidden, but about thirty residents smoke it; and although wine is not allowed, yet about half of them drink it. It is said that none use the leaf tobacco, but all use the water pipe.

They are expert dealers in live stock, such as sheep, cattle, goats, and horses and control the beef and mutton trade, also the milk market. They take the cow round to

customers and milk her and always lead the calf along, to first draw the milk. Should the calf die, a tulchan is made of the skin, carried round and put at the cow's nose whilst milking. Goats are tied by the horns to a post and milked. When trying to sell a cow they can, by the use of drugs, force the milk on the day of sale, and afterwards the purchaser finds he has made a bad bargain. When selling milk they have been known to conceal a bamboo tube containing bean-curd water up their sleeve and so dilute the milk in the very presence of the purchaser. The faithful are prohibited from attending theatrical performances or from giving money for such, or from participating in feasts pertaining to idolatrous festivals.

No Muhammadan may become an actor or pretend to be a demon by painting his face, or by cutting his flesh. No one may discuss the *pros* and *cons* of other religions. No Moslem becomes a barber. Mullahs shave in mosques with prepared water, others shave outside, but a good Moslem will not wash in the same water, sleep in the same bed, drink out of the same vessel, or eat from the same basin, as a heathen. Pig's flesh is hated and banished from the homes and streets where the Muhammadans live, and this seems to be the biggest bone of contention with the Chinese, who love the flesh of the hog. There is a kind of fellow feeling with the Christians on account of their being monotheists, but, whilst agreeing with our simple forms of worship, the Mullah told me they differed about the crucifixion of Christ. They believe Jesus Christ is a prophet, they recognize His virgin birth, but deny the crucifixion and resurrection. They believe He went to heaven without dying and will come again when all religions will be made one. In connexion with each mosque there is a school for teaching Arabic, and the Mullah told me he also teaches Persian; no fees are paid by the pupils, and the classes are divided into three grades: children of five or six years begin to study the rudiments; then there is the middle grade; whilst the advanced students who aspire to the office of Mullah reside in the courts of the mosque. The patrons of each mosque invite and pay their own Mullahs; a sum is set apart from the general fund for his work of teaching, and besides he gets fees for reading the Koran at births, marriages and deaths; at deaths, for instance, he gets eight cash for reading each volume of the Koran, and generally he reads thirty volumes. He gets a little for marriages and births; he also gets the skins of oxen and sheep which are taken to the mosque to be killed and eaten on the patriarchal birthdays. The rite of circumcision is administered to boys between the ages of eight to twelve years, but not later. A heathen may be admitted

into the religion by washing and having a patriarchal name given to him, but seeing he has not been circumcized he can hold no place of leadership in the mosque. All meat for the use of Moslems or killed by a Moslem must have the Koran read over it before it can be eaten. There is a Shah-tao Ahong (殺刀阿衡) or a Mullah to attend to this work alone. He gets as a remuneration for his services fifty cash per head for oxen and twenty cash per head for sheep; the blood is not eaten, but nothing else is wasted. When scholars go to ordinary Chinese schools they do not worship Confucius, but when they get a degree and enter the Wen Miao (文廟), or Temple of Literature, they have then to worship. When a Muhammadan official holds office, where idolatry is part of his State duties, he goes through them as such, and not as acts of worship, and as soon as he comes out of the temple, he repents of whatever evil he may have done and the sin they say is not imputed to him.

In sickness they invite a Chinese doctor, and take the medicine he prescribes. Few of their number aspire to the use of drugs.

Soon after a birth, the Ahong goes to the house and the baby is brought to the bedroom door, and the Ahong reads the *Tu La* (度拉), and blows into the child's ear the name of the patriarch after whom he is to be called, and this name the child carries through life, over and above his Chinese name. For forty days the mother is not supposed to come out of the bedroom, or enter the kitchen : at the end of that period she has to bathe and change her clothing; then she is clean.

In marriages a middle man is used but no horoscope is produced: such articles as earrings, bangles, rings, etc. are given as an evidence. When the bride is brought home a red chair is used, but no crackers are fired; the Ahong reads the Koran and mutual good wishes are interchnged and the marriage is consummated. The bride is carried from the chair to the bedroom and set on the side of the bed. Later on the young man's friends come and do up his hair and paint his face, and the groomsman dressed up brings in a trayful of sweetmeats. If the bridegroom wants to eat, he has to sing, and whilst singing they beat and maul him, in rough horseplay fashion, till the bride comes out and nods her head to them, as much as to say that is enough, then they all retire. For the first three days the girl's mother brings her food. The second day the guests come to a feast, the third day the bride goes to her maternal home for the day, and this concludes the wedding ceremonies.

At death the body is laid on a board and washed. The water drips into a bucket and this water is kept in the house for a few tens of days, and then emptied on to the ground. No outsider sees the washing. The women weep and the body is wrapped limb by limb in white cloth or silk, according to the standing of the family: musk, camphor, etc. are put next to the body to preserve it; the body is then rolled in three layers of calico, leaving only the face exposed; a napkin is tied about the head; the Ahong reads the Koran, and nothing more is done till the funeral. Within three days, the body is put into the bier—the same kind being used for either men or women. The bier is a light red casket about five Chinese feet long with a sliding bottom.

The grave is dug about three feet deep, and a kind of outer coffin with strong lid and no bottom is put in, and a layer, first of sand, then of incense, is laid inside this case, then the sliding bottom of the bier is removed, and the corpse falls into position with head towards the North, feet towards the South, back to East and face to West. The lid of coffin is then adjusted, and the earth mound piled above it is square in form, instead of round as the Chinese graves are. The ground is consecrated for the purpose, and no woman is allowed to attend the funeral.

For parents, three years' mourning is observed. After the burial ceremony the funeral rites are continued by reading the Koran on the third, sixth, and tenth days: then again at the end of the first month, forty days, half year, two years, and the end of the third year, and then the mourning ends. They seem to have a belief in a future resurrection. As to Fasts, the chief fast is Ramadan and lasts one month: the month being changed every third year. At the end of the fast comes the Muhammadan New Year, and thus their New Year is only in the same month as the Chinese New Year once in 36 years.

After the *La meh reh* feast the period of 70 days elapses, and there comes a short fast of one day called the *Ku ri pa*. Then after a further period of 100 days, there is a fast of three days called *ri shu la* during which they eat rice gruel, and at the end of it there is a big feast when much livestock is slaughtered for the occasion. Besides these fasts there is a fast at each new moon—the day after the new moon is visible. Fasts are proclaimed, and repealed, by the beating of a *pang-pang* (梆梆), a wooden clapper, by the students. During fast times no food is partaken of during the day time, and they must worship at the mosque before they go home to break their fast.

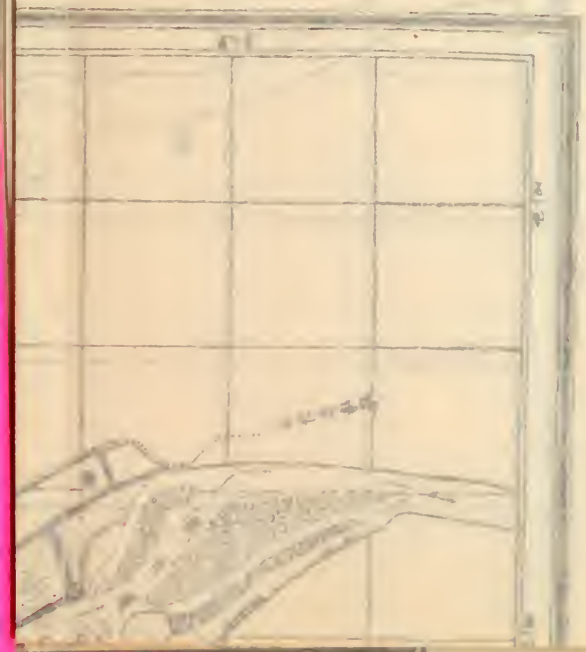
Chinese Map of Kwan Hsii

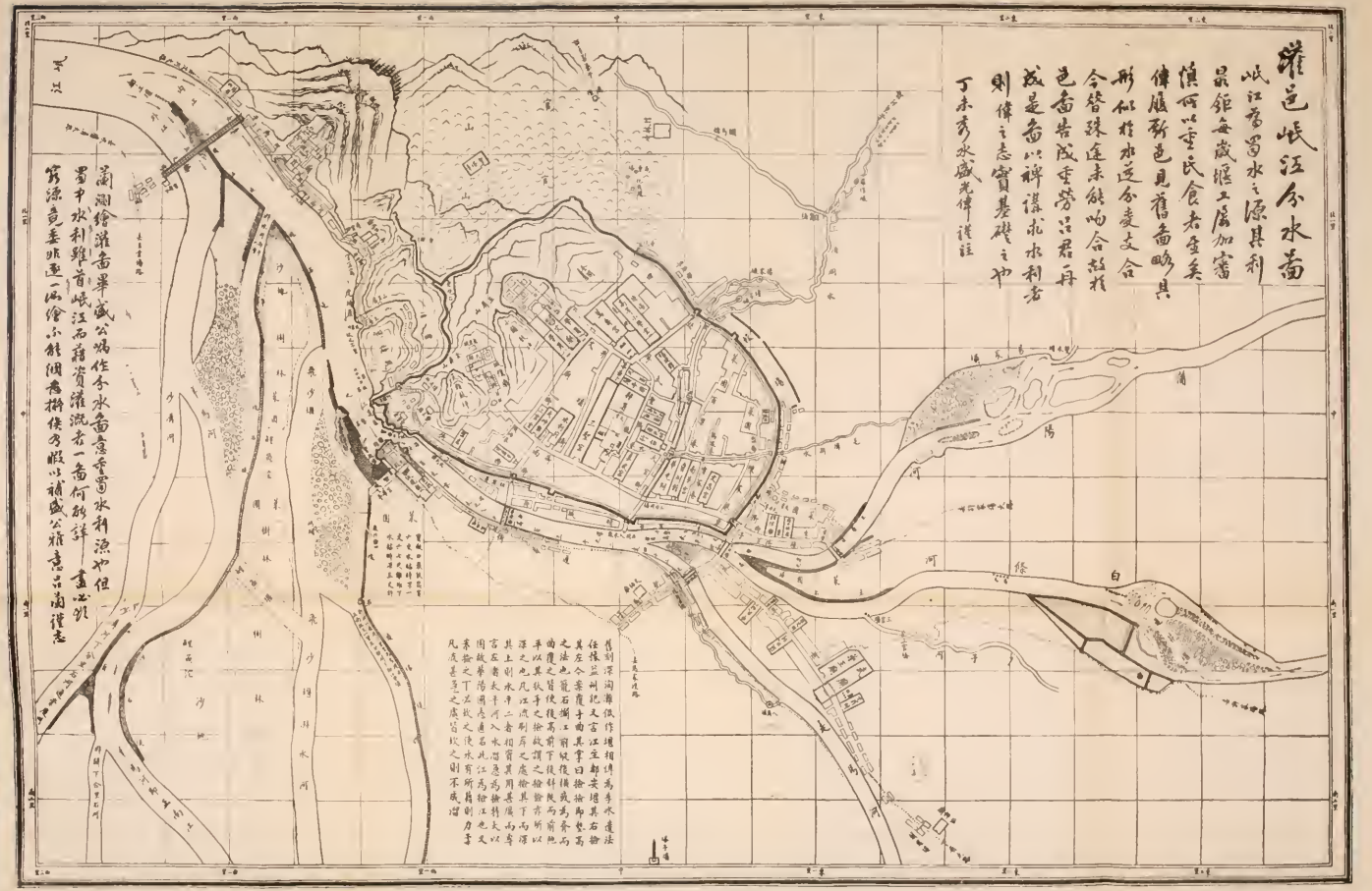
東三里

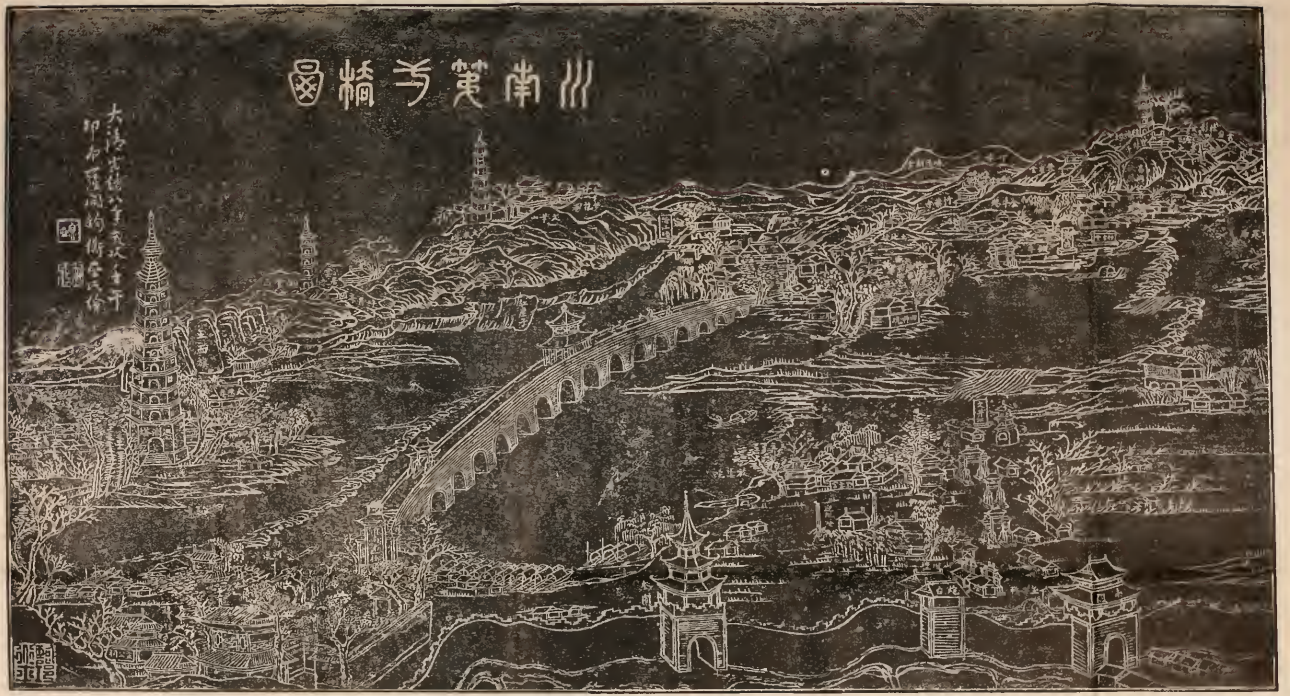
北二里

灌邑岷江

岷江發蜀山
景鉅每歲
慎爾以重民
偉服斯邑
形似於水之




灌邑岷江分水壩
岷江為蜀水之源其利
最鉅每歲興工偏加審
慎所以重民食者至矣
偉服斯邑見舊壩略具
形似於水泛分愛支合
合皆珠連未能吻合故於
邑壩告成重勞以君再
成是壩以裨溉水利者
則偉之志實基礎之物
丁未秀水盛光偉識
灌縣全圖
灌縣鉤稽灌壩畢盛公堰作分水壩意重蜀水利源如但
蜀中水利雖首岷江而藉資灌流者一壩何能詳盡必欲
窮源竟委則重一冊繪不能備載僅乃假以補盛公雅意云爾識之
舊制深闊籍很作堰相傳為李水遺法
往往益州記又言江至郫安堰其石脈
其左今案度手曲其實曰拾拾每歲取
之法也竟石獨工前以後積成為魯而
曲履之皆使葛下後斜陂而前地
手以其似手之拾故謂之拾拾亦所以
泽之也凡江流刷岸之處拾其下而深
其上則水平二者相資其用基隱而專
富在者大半河入水道是為拾拾大以
圍故華陽國志言江馬拾江也又
案拾之下足故之使水有所蓄則力專
凡度基至之底皆故之則不成拾
白河
灌縣
灌縣城
灌縣城
灌縣城



CHINESE VIEW OF "THE FIRST BRIDGE IN SOUTH SZECHWAN.

See Chapter VII.

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